CDX-C8050X

SERVICE MANUAL

US Model

Ver 1.2 2001.06

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-383V-121//Q
Optical Pick-up Name	KSS-720A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
19 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 10 Hz to 20 kHz with no more than 1% total harmonic distortion.

Other Specifications

CD player section

System	Compact disc digital audio system
Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser output power	Less than 44.6 µW*

* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.*

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	0.6% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs Power antenna relay control lead Power amplifier control lead Telephone ATT control lead
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 183 mm (7 1/8 × 2 × 7 1/4 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb. 14 oz.)
Supplied accessories	Card remote commander RM-X91 Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

FM/AM COMPACT DISC PLAYER

9-870-128-12
2001F0400-1
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Sony Corporation
e Vehicle Company
Shinagawa Tec Service Manual Production Group

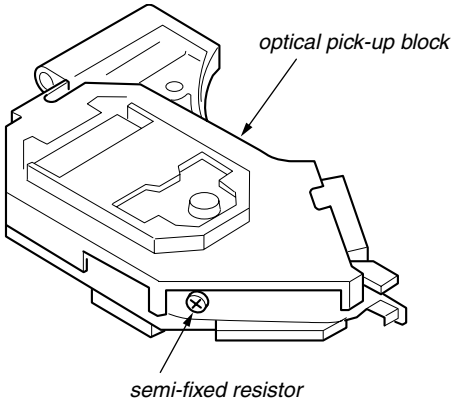
SONY®

SERVICE NOTES

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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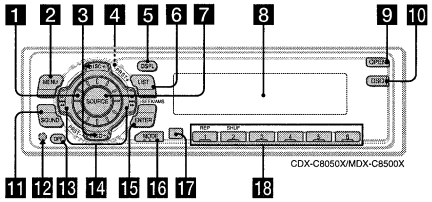
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls



Refer to the pages listed for details.

1 Volume control dial

2 MENU button 10, 13, 15, 16, 17, 18, 19, 20, 22, 24, 25, 26, 29, 30, 32

3 DISC/PRST +/– (cursor up/down) button 10, 13, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 29, 30, 32
- During radio reception: Preset stations select 19
- During CD/MD playback: Disc change 13, 16
- During TV reception: Channel select 30

4 ⏏ (eject) button (located on the front side of the unit behind the front panel) 11, 12

5 DSPL (display mode change) button 12, 13, 15, 20

6 LIST button
- Station Memo 20
- Disc Memo 15
- List-up 16, 21, 31

7 SOURCE (Tuner/CD/MD/TV) button 10, 11, 12, 13, 16, 18, 19, 21, 22, 23, 24, 25, 26, 30, 32

8 Display window

9 OPEN button 9, 11, 12, 33

10 DSO button 23

11 SOUND button 21, 22, 23, 24, 25

12 Reset button (located on the front side of the unit behind the front panel) 9

13 OFF button* 9, 10, 11, 12

14 SEEK/AMS –/+ (cursor left/right) button 10, 13, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 32
- Seek 18, 19
- Automatic Music Sensor 13
- Manual Search 13, 19

15 ENTER button 10, 13, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 29, 30, 32

16 MODE button
- During radio reception: BAND select 18, 19
- During CD or MD playback: CD/MD unit select 12, 16
- During TV reception: TV1/TV2 select 30

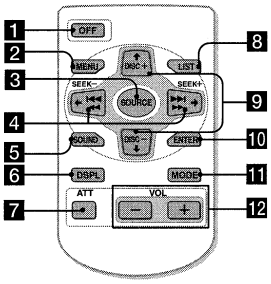
17 Receptor for the card remote commander

18 Number buttons
- During radio reception: Preset number select 18, 19
- During CD/MD playback:
  - (1) REP 14
  - (2) SHUF 14
- During TV reception: Preset number select 30

* **Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

Location of controls

Card remote commander RM-X91



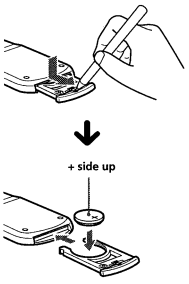
The corresponding buttons of the card remote commander control the same functions as those on this unit.

1 OFF button
2 MENU button
3 SOURCE button
4 SEEK/AMS (cursor ←/→) buttons
5 SOUND button
6 DSPL button
7 ATT button
8 LIST button
9 DISC/PRST (cursor ↑/↓) buttons
10 ENTER button
11 MODE button
12 VOL buttons

A unit turned off by pressing (OFF) for two seconds cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed or a disc is inserted to activate the unit first.

Replacing the lithium battery

When the battery becomes weak, the range of the card remote commander becomes shorter. Replace the battery with a new CR2025 lithium battery.



Notes on lithium battery

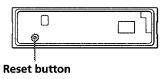
- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure a good contact.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.

WARNING
Battery may explode if mistreated.
Do not recharge, disassemble, or dispose of in fire.

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Remove the front panel and press the reset button with a pointed object, such as a ball-point pen.



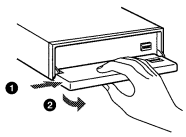
Note
Pressing the reset button will erase the clock setting and some memorized functions.

Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

1 Press (OFF).

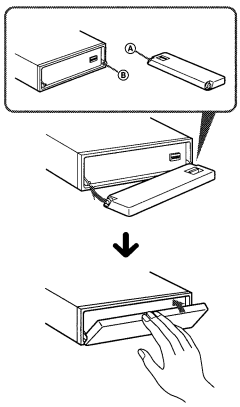
2 Press (OPEN), then slide the front panel to the right side, and pull out the left side of the front panel.



Notes
- *Do not put anything on the inner surface of the front panel.*
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you detach the panel while the unit is still turned on, the power will turn off automatically to prevent the speakers from being damaged.*
- *When carrying the front panel with you, use the supplied front panel case.*

Attaching the front panel

Place the hole Ⓐ in the front panel onto the spindle Ⓑ on the unit as illustrated, then push the left side in.



Notes
- *Be careful not to attach the front panel upside down.*
- *Do not press the front panel too hard against the unit when attaching it.*
- *Do not press too hard or put excessive pressure on the display window of the front panel.*
- *Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight or where there may be a considerable rise in temperature.*

Caution alarm

If you turn the car ignition off without removing the front panel, the caution alarm will beep for a few seconds.

Turning the unit on/off

Turning on the unit

Press (SOURCE) or insert a disc in the unit. For details on operation, refer to page 11 (CD/MD) and page 18 (Radio).

Turning off the unit

Press (OFF) to stop CD/MD playback or FM/AM reception (the key illumination and display remains on.)

Press (OFF) for two seconds to completely turn off the unit.

Note
If your car has no ACC position on the ignition key switch, be sure to turn the unit off by pressing (OFF) for two seconds to avoid car battery wear.

How to use the menu

This unit is operated by selecting items from a menu.
To select, first enter the menu mode and choose up/down (+/– of (DISC/PRST)), or choose left/right (–/+ of (SEEK/AMS)).

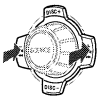
(DISC/PRST)

(+) : To select upwards

(–) : To select downwards

(SEEK/AMS)

(–) : To select leftwards

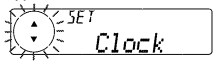


(+) : To select rightwards

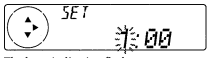
Setting the clock

The clock uses a 12-hour digital indication.
Example: To set the clock to 10:08

1 Press (MENU), then press either side of (DISC/PRST) repeatedly until "Clock" appears.

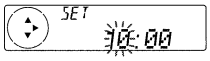


❶ Press (ENTER).

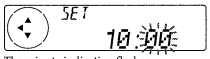


The hour indication flashes.

❷ Press either side of (DISC/PRST) to set the hour.

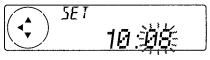


❸ Press (+) side of (SEEK/AMS).

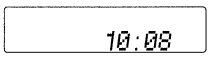


The minute indication flashes.

❹ Press either side of (DISC/PRST) to set the minute.



2 Press (ENTER).



The clock starts.

After the clock setting is completed, the display returns to normal playback mode.

Note
In the initial setting, the clock indication appears while the unit is turned off.
When you select the "on" setting of the "D.Info" item (page 29), you can see the clock indication in the upper part of the display while you are enjoying any source.

CD/MD

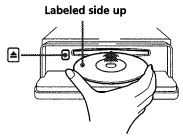
CDX-C8050X:
In addition to playing a CD with this unit alone, you can also control external CD/MD units.

MDX-C8500X:
In addition to playing an MD with this unit alone, you can also control external CD/MD units.

If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you playback a CD TEXT disc.

Listening to a CD with CDX-C8050X only

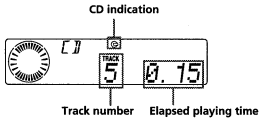
1 Press (OPEN) and insert the CD.
Playback starts automatically.



2 Close the front panel.

Tip
To play back an 8 cm (3 in.) CD, use the optional Sony compact disc single adapter (CSA-8).

If a CD is already inserted, press (SOURCE) repeatedly until "CD" appears to start playback.



When the last track on the CD is over

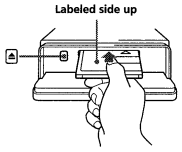
The track number indication returns to "1," and playback restarts from the first track of the CD.

To	Press
Stop playback	(OFF)
Eject the CD	(OPEN) then ⏏

For details on operation, refer to "**Changing the display item**" (page 12), "**Automatically scrolling a disc name**," "**Locating a specific track**," "**Locating a specific point in a track**," and "**Locating a disc**" (page 13).

Listening to an MD with MDX-C8500X only

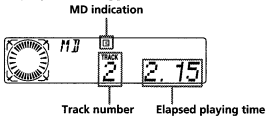
1 Press (OPEN) and insert the MD.
Playback starts automatically.



2 Close the front panel.

If an MD is already inserted, press (SOURCE) repeatedly until "MD" appears to start playback.

The title of the MD* and the track title will appear in the display window, then the playing time will appear.



** Only if these titles are prerecorded on the MD.*

When the last track on the MD is over

The track number indication returns to "1," and playback restarts from the first track of the MD.

To	Press
Stop playback	(OFF)
Eject the MD	(OPEN) then ⏏

For details on operation, refer to "**Changing the display item**," "**Automatically scrolling a disc name**," "**Locating a specific track**," "**Locating a specific point in a track**," and "**Locating a disc**" (page 13).

Playing a CD or MD
(with optional CD/MD unit)

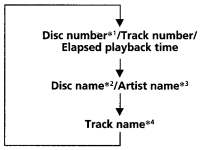
1 Press (SOURCE) repeatedly to select "CD" or "MD".

2 Press (MODE) until the desired unit appears.
CD/MD playback starts.

All the discs in the current CD/MD unit is played from the top.

Changing the display item

Each time you press (DSPL) during MD, CD or CD TEXT disc playback, the item changes as follows:



**1 While an optional CD/MD unit is connected.*
**2 If you have not labeled the CD or CD TEXT disc, or if there is no disc name prerecorded on the MD, "NO D.Name" appears in the display.*
**3 If you playback a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)*
**4 If the track name of a CD TEXT disc or MD is not prerecorded, "NO T.Name" appears in the display.*

When you connect an optional CD unit, you can label CD and CD TEXT discs with a personalized name using the disc memo function. Refer to "Labeling a CD" (page 15). However, if you use personalized labels, they will always take priority over the original CD TEXT information when such information is displayed.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds.
In the Motion Display mode, all the items are scrolled in the display one by one in order.

Tip
The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 29).

Automatically scrolling a disc name —Auto Scroll

If the disc name, artist name, or track name on an MD or a CD TEXT disc exceeds 10 characters and the Auto Scroll function is on, information automatically scrolls across the display as follows:
- *The disc name appears when the disc has changed (if the disc name is selected as the display item).*
- *The track name appears when the track has changed (if the track name is selected as the display item).*
- *The disc or track name appears depending on the setting when you press (SOURCE) to select an MD or CD TEXT disc.*

If you press (DSPL) to change the display item, the disc or track name of the MD or CD TEXT disc is scrolled automatically whether you set the function on or off.

1 During playback, press (MENU).

2 Press either side of (DISC/PRST) repeatedly until "A.Scrl" appears.

3 Press (+) side of (SEEK/AMS) to select "A.Scrl on."

4 Press (ENTER).

To cancel Auto Scroll, select "A.Scrl off" in step 3 above.

Note
For some CD TEXT discs with very many characters, the following cases may happen:
— Some of the characters are not displayed.
— Auto Scroll does not work.

Locating a specific track —Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) momentarily for each track you want to skip.

Locating a specific point in a track —Manual Search

During playback, press and hold either side of (SEEK/AMS). Release when you have found the desired point.

Note
If "└└ └└" or "┐┐ ┐┐" appears in the display, you have reached the beginning or the end of the disc and you cannot go any further.

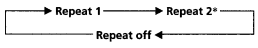
Locating a disc —Disc Selection

When an optional CD/MD unit is connected, press either side of (DISC/PRST) to select the desired disc.
The desired disc in the current optional CD/MD unit begins playback.

Playing tracks repeatedly —Repeat Play

The disc in the main unit will automatically repeat itself when it reaches the end. As repeat play, you can select:
- Repeat 1 - to repeat a track.
- Repeat 2 - to repeat a disc in the optional CD/MD unit.

During playback, press (1) (REP) repeatedly until the desired setting appears in the display.



** "Repeat 2" is only available when you connect one or more optional CD/MD units.*

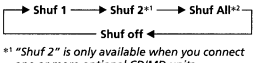
Repeat Play starts.

To return to normal playback mode, select "Repeat off" in the step above.

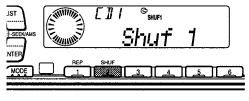
Playing tracks in random order —Shuffle Play

You can select:
- Shuf 1 - to play the tracks on the current disc in random order.
- Shuf 2 - to play the tracks in the current optional CD/MD unit in random order.
- Shuf All - to play all the tracks in all the optional CD/MD units in random order.

During playback, press (2) (SHUF) repeatedly until the desired setting appears in the display.



**1 "Shuf 2" is only available when you connect one or more optional CD/MD units.*
**2 "Shuf All" is only available when:*
- *you connect one or more optional CD units, or two or more MD units (CDX-C8050X).*
- *you connect one or more optional MD units, or two or more CD units (MDX-C8500X).*



Shuffle Play starts.

To return to normal playback mode, select "Shuf off" in the step above.

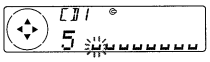
Labeling a CD — Disc Memo
(For a CD unit with the custom file function)

You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate the disc by name (page 16) and select the specific tracks for playback (page 17).

1 **Press (MENU), then press either side of (DISC/PRST) repeatedly until "Name Edit" appears.**

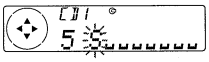
2 **Press (ENTER).**

Name edit mode



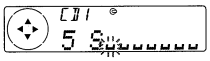
3 **Enter the characters.**

❶ Press (+) side of (DISC/PRST) repeatedly to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → ␣)



If you press (–) side of (DISC/PRST) repeatedly, the characters will appear in reverse order.
If you want to put a blank space between characters, select "␣" (under-bar).

❷ Press (+) side of (SEEK/AMS) after locating the desired character.
The next character flashes.



If you press (–) side of (SEEK/AMS), the previous character flashes.

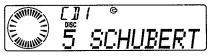
❸ Repeat steps ❶ and ❷ to enter the entire name.

4 **To return to normal CD playback mode, press (ENTER).**

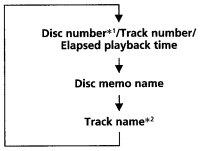
Tips
- *To erase or correct a name, enter "␣" (under-bar) for each character.*
- *There is another way to start labeling a CD. Press and hold (LIST) for two seconds instead of steps 1 and 2. You can also complete the operation by pressing and holding (LIST) for two seconds instead of step 4.*

Displaying the disc memo

Press (DSPL) during CD or CD TEXT disc playback.



Each time you press (DSPL) during CD or CD TEXT disc playback, the item changes as follows:



*1 *While an optional CD unit is connected.*
*2 *If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.*

Note
Do not use the Custom file feature while driving, or perform any other function which could divert your attention from the road.

Erasing the disc memo

1 **Press (SOURCE) repeatedly to select "CD."**

2 **Press (MODE) repeatedly to select the CD unit.**

3 **Press (MENU), then press either side of (DISC/PRST) repeatedly until "NameDel" appears.**

4 **Press (ENTER).**

5 **Press either side of (DISC/PRST) repeatedly to select the disc name you want to erase.**

6 **Press (ENTER) for two seconds.**
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.

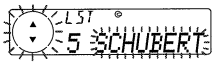
7 **Press (MENU) twice.**
The unit returns to normal CD playback mode.

Notes
- *When a personalized label is erased, the original CD TEXT information will appear in the display.*
- *When you erase all of the disc names, "No Data" appears in step 5.*

Locating a disc by name
— List-up (For a CD unit with the custom file function or an MD unit)

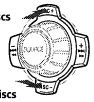
You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 15).

1 **Press (LIST).**
The name assigned to the current disc appears in the display.



When you assign a disc memo label to a CD TEXT disc, it takes priority over the original CD TEXT information.

2 **Press either side of (DISC/PRST) repeatedly until you find the desired disc.**



3 **Press (ENTER) to play the disc.**

Notes
- *After a disc name has been displayed for five seconds, the display returns to normal playback mode. To turn off the display, press (LIST).*
- *The track names are not displayed during MD or CD TEXT disc playback.*
- *If there are no discs in the magazine, "NO Disc" appears in the display.*
- *If a disc has not been assigned a custom file, "********" appears in the display.*
- *If the disc information has not been read by the unit, "?" appears in the display. To load a disc, first press the number button, then choose the disc that has not been loaded.*
- *Some letters cannot be displayed (during MD or CD TEXT disc playback).*

Selecting specific tracks for playback — Bank
(For a CD unit with the custom file function)

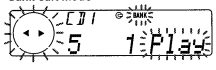
If you label the disc, you can set the unit to skip or play the tracks of your choice.

1 **Start playing the disc you want to label.**

2 **Press (MENU), then press either side of (DISC/PRST) repeatedly until "Bank sel" appears.**

3 **Press (ENTER).**

Bank edit mode



4 **Label the tracks.**

❶ Press either side of (SEEK/AMS) repeatedly to select the track you want to label.

❷ Press (ENTER) repeatedly to select "Play" or "Skip."

5 **Repeat step 4 to set "Play" or "Skip" for all the tracks.**

6 **Press (MENU) twice.**
The unit returns to normal CD playback mode.

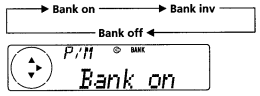
Notes
- *"NO Name" flashes for five seconds when an unlabeled disc is selected in step 3.*
- *You can set "Play" and "Skip" for up to 24 tracks.*
- *You cannot set "Skip" for all the tracks on a CD.*

Playing specific tracks only

You can select:
- "Bank on" - to playback the tracks with the "Play" setting.
- "Bank inv" (Inverse) - to playback the tracks with the "Skip" setting.

1 **During playback, press (MENU), then press either side of (DISC/PRST) repeatedly until "Bank off" appears.**

2 **Press (+) side of (SEEK/AMS) repeatedly until the desired setting appears.**



3 **Press (MENU).**
Playback starts from the track following the current one.

To return to normal playback mode, select "Bank off" in step 2 above.

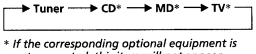
Radio

Memorizing stations automatically
— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 6 stations on each band (FM1, FM2, FM3, AM1, and AM2).

Caution
When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

1 **Press (SOURCE) repeatedly to select the tuner.**
Each time you press (SOURCE), the source changes as follows:



** If the corresponding optional equipment is not connected, this item will not appear.*

2 **Press (MODE) repeatedly to select the band.**
Each time you press (MODE), the band changes as follows:

3 **Press (MENU), then press either side of (DISC/PRST) repeatedly until "BTM" appears.**

4 **Press (ENTER).**
The unit stores stations in the order of their frequencies on the number buttons.
A beep sounds when the setting is stored.

Notes
- *The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.*
- *When a number is indicated in the display, the unit starts storing stations from the one currently displayed.*
- *If a disc is not in the unit, only the tuner band appears even if you press (SOURCE).*

Memorizing only the desired stations

You can preset up to 18 FM stations (6 each for FM1, FM2, and FM3), up to 12 AM stations (6 each for AM1 and AM2) in the order of your choice.

1 **Press (SOURCE) repeatedly to select the tuner.**

2 **Press (MODE) repeatedly to select the band.**

3 **Press either side of (SEEK/AMS) to tune in the station that you want to store on the number button.**

4 **Press and hold the desired number button ((1) to (6)) until "MEM" appears.**
The number button indication appears in the display.

Note
If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorized stations

1 Press (SOURCE) repeatedly to select the tuner.

2 Press (MODE) repeatedly to select the band.

3 Press the number button (1 to 6) on which the desired station is stored.

Tip
Press either side of (DISC/PRST) to receive the stations in the order they are stored in the memory (Preset Search Function).

If you cannot tune in a preset station

Press either side of (SEEK/AMS) to search for the station (automatic tuning).
Scanning stops when the unit receives a station. Press either side of (SEEK/AMS) repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press (MENU), then press either side of (DISC/PRST) repeatedly until "Local" (local seek mode) is displayed. Then press (+) side of (SEEK/AMS) to select "Local on." Press (ENTER).
Only the stations with relatively strong signals will be tuned in.

Tips
- *When you select the "Local on" setting, "LCL Seek" appears while the unit is searching for a station.*
- *If you know the frequency of the station you want to listen to, press and hold either side of (SEEK/AMS) until the desired frequency appears (manual tuning).*

If FM stereo reception is poor —Monaural Mode

1 During radio reception, press (MENU), then press either side of (DISC/PRST) repeatedly until "Mono" appears.

2 Press (+) side of (SEEK/AMS) until "Mono on" appears.
The sound improves, but becomes monaural ("ST" disappears).

3 Press (ENTER).

To return to normal mode, select "Mono off" in step 2 above.

If FM stereo broadcast becomes monaural

If interference occurs, the "IF Auto" function of this unit will automatically avoid noise and narrow the reception frequency. In such cases, some FM stereo broadcasts may become monaural. If you would like to listen to such broadcasts in stereo, manually switch to the "Wide" setting.

1 During radio reception, press (MENU), then press either side of (DISC/PRST) repeatedly until "IF Auto" appears.

2 Press (+) side of (SEEK/AMS) repeatedly to select desired setting.
IF Auto ↔ Wide

3 Press (ENTER).

Note
When you widen the frequency signal reception setting ("Wide" mode), some interference may occur.

Storing the station names —Station Memo

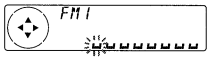
You can assign a name to each radio station and store it in memory. The name of the station currently tuned in appears in the display. You can assign a name of up to eight characters for a station.

Storing the station names

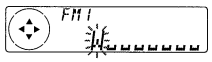
1 Tune in a station whose name you want to store.

2 Press (MENU), then press either side of (DISC/PRST) repeatedly until "Name Edit" appears.

3 Press (ENTER).

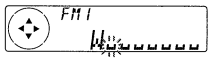


4 Enter the characters.
❶ Press (+) side of (DISC/PRST) repeatedly to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → ␣)



If you press (–) side of (DISC/PRST) repeatedly, the characters appear in the reverse order.
If you want to put a blank space between characters, select "␣" (underbar).

❷ Press (+) side of (SEEK/AMS) after locating the desired character.
The next character flashes.



If you press (–) side of (SEEK/AMS), the previous character flashes.

❸ Repeat steps ❶ and ❷ to enter the entire name.

5 To return to the normal radio reception, press (ENTER).

Tips
- *To erase or correct a name, enter "␣" (underbar) for each character.*
- *When storing station names, there is an alternative method; press and hold (LIST) for two seconds instead of doing steps 2 and 3. Likewise, you can complete the operation by pressing and holding (LIST) for two seconds instead of doing step 5.*

Displaying the station name

Press (DSPL) during radio reception.

Each time you press (DSPL), the item changes as follows:
Station name* ↔ Frequency

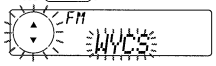
** If the station name of a station is not stored, "NO Name" appears in the display for one second.*

Erasing the station name

1 Tune in a station you want to erase.

2 Press (MENU), then press either side of (DISC/PRST) repeatedly until "NameDel" appears.

3 Press (ENTER).



4 Press either side of (DISC/PRST) to select the station name you want to erase.

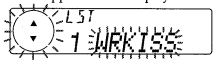
5 Press (ENTER) for two seconds.
The name is erased.
Repeat steps 4 through 5 if you want to erase other names.

6 To return to the normal radio reception, press (MENU).

Note
When you erase all of the station names, "NO Data" appears in step 5.

Locating a station by name —List-up

1 Press (LIST).
The name assigned to the station currently tuned appears in the display.



2 Press either side of (DISC/PRST) repeatedly until you find the desired station.
When no name is assigned to the selected station, the frequency appears in the display.

3 Press (ENTER) to tune in the desired station.

Notes
- *Once the station name or frequency has been displayed for five seconds, the display goes back to its normal mode. To turn off the display, press (LIST).*
- *When you connect a TV tuner, the list-up indication will not appear in the display of the unit.*

DSP

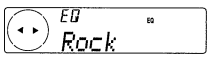
Setting the equalizer

You can select an equalizer curve for five music types (Rock, Vocal, Groove, Techno, and Custom).
You can store and adjust the equalizer settings for frequency and level.

Selecting the equalizer curve

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (SOUND) repeatedly until "EQ" appears.
Each time you press (SOUND), the item changes as follows:
EQ (equalizer curve) → POS (listening position) → BAL (right-left) → F (front speaker volume) → R (rear speaker volume) → SUB (subwoofer volume) → VOL (volume) → EQ (equalizer curve)



3 Press either side of (SEEK/AMS) to select the desired equalizer curve.
Each time you press (SEEK/AMS), the item changes as follows:
Rock ↔ Vocal ↔ Groove ↔ Techno ↔ Custom ↔ off ↔ Rock

To cancel the equalizing effect, select "off." After three seconds, the display returns to the normal playback mode.

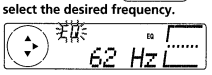
Adjusting the equalizer curve

1 Press (MENU).

2 Press either side of (DISC/PRST) repeatedly until "EQ Tune" appears, then press (ENTER).

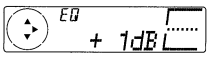
3 Press either side of (SEEK/AMS) to select the desired equalizer curve, then press (ENTER).
Each time you press (SEEK/AMS), the item changes as follows:
Rock ↔ Vocal ↔ Groove ↔ Techno ↔ Custom ↔ off ↔ Rock

4 Select the desired frequency and level.
❶ Press either side of (SEEK/AMS) to select the desired frequency.



Each time you press (SEEK/AMS), the frequency changes as follows:
62 Hz ↔ 157 Hz ↔ 396 Hz ↔ 1.0kHz ↔ 2.5kHz ↔ 6.3kHz ↔ 16.0kHz

❷ Press either side of (DISC/PRST) to adjust the desired volume level.
The volume is adjustable by 1 dB steps from –12 dB to +12 dB.

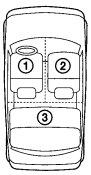


To restore the factory-set equalizer curve, press (ENTER) for two seconds.

5 Press (MENU) twice.
When the effect setting is complete, the normal playback mode appears.

Selecting the listening position

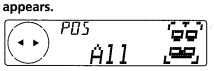
You can set a delayed time for the sound to reach the listeners from the speakers.
In this way, the unit can simulate a natural sound field so that you feel as if you are in the centre of the sound field no matter where you sit in the car.



Display window	Centre of sound field
POS All	Normal setting (① + ② + ③)
POS Front	Front part (① + ②)
POS Front-R	Right front (②)
POS Front-L	Left front (①)
POS Rear	Rear part (③)
POS off	Cancel

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (SOUND) repeatedly until "POS" appears.



3 Press either side of (SEEK/AMS) to select the desired listening position.
Each time you press (SEEK/AMS), the item changes as follows:
All ↔ Front ↔ Front-R ↔ Front-L ↔ Rear ↔ off ↔ All

To cancel the POS mode, select "off." After three seconds, the display returns to the normal playback mode.

Selecting a soundstage menu

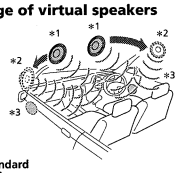
—Dynamic Soundstage Organizer (DSO)

If your speakers are installed into the lower part of the doors, the sound will come from below and may not be clear.
The DSO (Dynamic Soundstage Organizer) function creates a more ambient sound as if there were speakers in the dashboard (virtual speakers).

Soundstage menu

Memory presets	Meaning
DSO 1, 2, and 3	Virtual speakers (Standard)
Wide	Virtual speakers (Wide)
off	Cancel

Image of virtual speakers

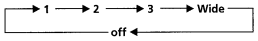


*1 Standard
*2 Wide
*3 Acutual speakers position (lower part of the front doors).

Selecting the DSO

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (DSO) repeatedly to select the desired DSO mode.
Each time you press (DSO), the mode changes as follows:



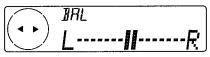
To cancel the DSO mode, select "off."
After three seconds, the display returns to the normal playback mode.

Adjusting the balance (BAL)

You can adjust the sound balance from the left and right speakers.

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (SOUND) repeatedly until "BAL" appears.

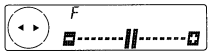


3 Press either side of (SEEK/AMS) to adjust the balance.
After three seconds, the display returns to the normal playback mode.

Adjusting the front and rear fader

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (SOUND) repeatedly until "F" for the front speakers or "R" for the rear speakers appears.

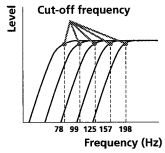


3 Press either side of (SEEK/AMS) to adjust the volume of front/rear speakers.

4 Press (MENU) twice.
After three seconds, the display returns to the normal playback mode.

Adjusting the cut-off frequency and the output volume level for the front/rear speakers

To match the characteristics of the installed speaker system, you can adjust the output volume level and the cut-off frequency of the speakers.

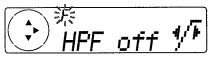


1 Press (MENU).

2 Press either side of (DISC/PRST) repeatedly until "Front HPF" or "Rear HPF" appears, then press (ENTER).

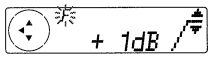
3 Select the desired frequency and level.

❶ Press either side of (SEEK/AMS) to select the cut-off frequency.



Each time you press (SEEK/AMS), the frequency changes as follows:
off ↔ 78 Hz ↔ 99 Hz ↔ 125 Hz ↔ 157 Hz ↔ 198 Hz

❷ Press either side of (DISC/PRST) to adjust the volume level .
The volume is adjustable by 1 dB steps from –12 dB to +12 dB.



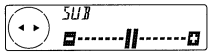
4 Press (MENU) twice.
When the effect setting is complete, the normal playback mode appears.

Tip
When you lower the volume all the way down, "ATT" appears and the cut-off frequency is disabled.

Adjusting the volume of the subwoofer(s)

1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (SOUND) repeatedly until "SUB" appears.



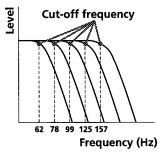
3 Press either side of (SEEK/AMS) to adjust the volume level.

4 Press (MENU) twice.
After three seconds, the display returns to the normal playback mode.

Tip
When you lower the volume all the way down, "ATT" appears and the cut-off frequency of the subwoofer is disabled.

Adjusting the frequency of the subwoofer(s)

To match the characteristics of the connected subwoofer(s), you can cut out the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency (see the diagram below), the subwoofer(s) will output only low frequency signals so you can get a clearer sound image.

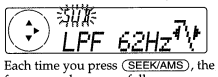


1 Press (MENU).

2 Press either side of (DISC/PRST) repeatedly until "SUB LPF" appears, then press (ENTER).

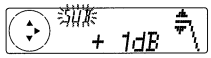
3 Select the desired frequency and level.

❶ Press either side of (SEEK/AMS) to select the desired frequency.



Each time you press (SEEK/AMS), the frequency changes as follows:
62 Hz ↔ 78 Hz ↔ 99 Hz ↔ 125 Hz ↔ 157 Hz ↔ off

❷ Press either side of (DISC/PRST) to adjust the desired volume level.
The volume is adjustable by 1 dB steps from –12 dB to +12 dB.



4 Press (MENU) twice.
After the frequency setting is complete, the display returns to the normal playback mode.

Tip
When you lower the volume all the way down, "ATT" appears and the cut-off frequency is disabled.

Listening to each programme source in its registered DSO

—Source Sound Memory (SSM)

Each time you return to the same source, you can hear the same DSO menu and equalizer curve registered for that source, even after changing the programme source or turning the unit off and then on again.

Selecting the spectrum analyzer

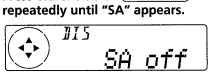
The sound signal level is displayed on a spectrum analyzer. You can select a display pattern from 1 to 6, or the automatic display mode.

Mode	Display patterns
SA 1	
SA 2	
SA 3	
SA 4	
SA 5	
SA 6	
off	Cancel
SA Auto	All of these display patterns appear one by one automatically.

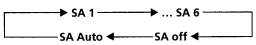
1 Press (SOURCE) to select a source (tuner, CD, or MD).

2 Press (MENU).

3 Press either side of (DISC/PRST) repeatedly until "SA" appears.



4 Press (+) side of (SEEK/AMS) repeatedly to select the desired setting.
Each time you press (+) side of (SEEK/AMS), the setting changes as follows:



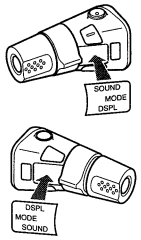
5 Press (ENTER).

Other Functions

You can also control this unit with the rotary commander (option).

Labeling the rotary commander

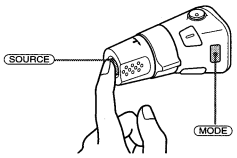
Depending on how you mount the rotary commander, attach the appropriate label as shown in the illustration below.



Using the rotary commander

The rotary commander works by pressing buttons and/or rotating controls.
You can control also an optional CD/MD unit with the rotary commander.

By pressing buttons (the SOURCE and MODE buttons)



Each time you press (SOURCE), the source changes as follows:

Tuner → CD* → MD* → TV*

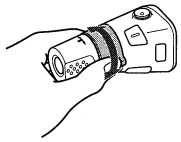
** If the corresponding optional equipment is not connected, this item will not appear.*

Pressing (MODE) changes the operation in the following ways:

- **Tuner: FM1 → FM2 → FM3 → AM1 → AM2**
- **CD unit*: CD1 → CD2 → ...**
- **MD unit*: MD1 → MD2 → ...**
- **TV/Video*: TV1 → TV2 → AUX**

** If the corresponding optional equipment is not connected, the item will not appear.*

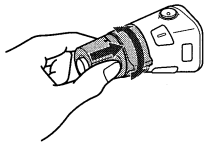
By rotating the control (the SEEK/AMS control)



Rotate the control momentarily and release it to:

- Locate a specific track on a disc. Rotate and hold the control until you locate the specific point in a track, then release it to start playback.
- Tune in stations automatically. Rotate and hold the control to find a specific station.

By pushing in and rotating the control (the PRESET/DISC control)

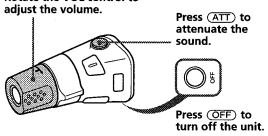


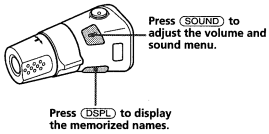
Push in and rotate the control to:

- Receive the stations memorized on the number buttons.
- Change the disc.

Other operations

Rotate the VOL control to adjust the volume.

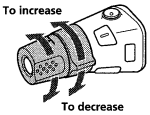




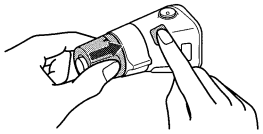
Tip
If your car has no ACC (accessory) position on the ignition key switch, be sure to press (OFF) for two seconds to turn off the clock indication after turning off the engine.

Changing the operative direction

The operative direction of controls is factory-set as shown below.



If you need to mount the rotary commander on the right hand side of the steering column, you can reverse the operative direction.



Press (SOUND) for two seconds while pushing the VOL control.

Tip
You can also change the operative direction of these controls with the unit (see "Changing the sound and display settings" on page 29).

Attenuating the sound

Press (ATT) on the rotary commander or the card remote commander.
"ATT on" flashes momentarily.

To restore the previous volume level, press (ATT) again.

Tip
When the interface cable of a car telephone is connected to the ATT lead, the unit decreases the volume automatically when a telephone call comes in (Telephone ATT function).

Changing the sound and display settings

The following items can be set:

SET

- Clock (page 10)
- Beep - to turn on or off the beeps.
- RM (Rotary Commander) - to change the operative direction of the controls of the rotary commander.
  — Select "norm" to use the rotary commander as the factory-set position.
  — Select "rev" when you mount the rotary commander on the right side of the steering column.
- Multi language (language selection) - to change the display language to English, French, or Spanish.
- D.Info (Dual Information) - to display the clock and the play mode at the same time (on) or to display the information alternately (off).

DIS

- SA (Spectrum Analyzer) - to change the display pattern of the equalizer display.
- Dimmer - to change the brightness of the display.
  — Select "Auto" to dim the display only when you turn the lights on.
  — Select "on" to dim the display.
  — Select "off" to deactivate Dimmer.
- Contrast - to adjust the contrast if the indications in the display are not recognisable because of the unit's installed position.
- M.Dspl (Motion display) - to turn the motion display to 1, 2 , or off.
- A.Scrl (Auto Scroll) (page 13)

SND

- EQ Tune (Equalizer tuning) - to adjust the frequency and volume level of the equalizer curve.
- Front HPF (High pass filter for the front pre-output) - to select the cut-off frequency of the front pre-output.
- Rear HPF (High pass filter for the rear pre-output) - to select the cut-off frequency of the rear pre-output.
- SUB LPF (Low pass filter for the subwoofer output) - to select the cut-off frequency of the subwoofer output.

1 Press (MENU).

2 Press either side of (DISC/PRST) repeatedly until the desired item appears.
Each time you press (–) side of (DISC/PRST), the item changes as follows:

Example:

Clock → Beep → RM → Multi language → D.Info → SA → Dimmer → Contrast → M.Dspl → A.Scrl → Local → Mono → IF → EQ Tune → Front HPF → Rear HPF → SUB LPF → Name edit → NameDel → BTM

Note
The displayed item will differ depending on the source.

Tip
You can easily switch among categories ("SET", "DIS", "PIM", "SND" and "EDT") by pressing and holding either side of (DISC/PRST) for two seconds.

3 Press either side of (SEEK/AMS) to select the desired setting (Example: "on" or "off").

4 Press (ENTER).
After the mode setting is complete, the display returns to normal playback mode.

TV/Video

You can connect an optional TV tuner and TV monitor to this unit.

Watching the TV

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press either side of (DISC/PRST) repeatedly to select the desired TV band.

Watching a video

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (MODE) repeatedly to select "Video 1."
Playback the video.

Note
"Video 2" appears if the VIDEO 2 terminal of the TV monitor is selected.

Memorizing TV channels automatically

The unit selects the TV channels with the strongest signals and memorizes them in the order of their frequency.

Caution

When tuning in a station while driving, use Best Tuning Memory to prevent accidents.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (MENU), then press either side of (DISC/PRST) until "Auto Mem" appears.

3 Press (ENTER).
The unit stores TV channels in the order of their frequencies on the number buttons. A beep sounds when the setting is stored.

Notes

- *The unit does not store TV channels with weak signals. If only a few TV channels can be received, some number buttons will remain empty.*
- *When a preset number is indicated in the display, the unit starts storing TV channels from the one currently displayed.*

Memorizing only the desired TV channels

You can store up to 6 channels on the number buttons in the order of your choice.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press either side of (SEEK/AMS) to tune in the TV channel you want to store on each number button.

3 Press and hold the desired number button (1 to 6) until you hear a beep sound.
The number button indication appears in the display.

Note
If you try to store another channel on the same number button, the previously stored channel will be erased.

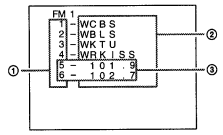
Storing the TV channel names

Follow the steps in "Storing the station names" (page 20).

Displaying the TV or radio station names

Press LIST during TV or radio reception.

Example: When receiving the FM1 band



① Preset number
② Stored station names
③ Frequencies*

* *If the name of a station is not stored, the frequency of that station will be displayed instead.*

Notes

- *It may take some time before all indications appear in the display.*
- *The TV channel does not appear during list display.*
- *The contents of the preset memory cannot be listed when the unit is in simultaneous play mode (page 32).*

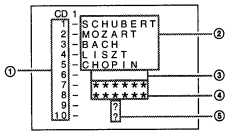
Turning off the display

During radio reception, press LIST again.
During TV reception, the list display on the TV monitor will automatically turn off after a few seconds.

Displaying the information stored on discs

Press LIST during CD/MD playback.

Example: When CD unit 1 is selected.



① Disc numbers
② Titles stored as custom files
③ No disc is loaded*1
④ No stored titles*2
⑤ TOC information has not been identified yet*3

*1 *A blank space is displayed next to a disc number represents empty slots in the disc magazine.*
*2 *If a title is not registered in the custom file, "******" is displayed.*
*3 *If the disc information has not been read yet by the unit, "?" is displayed.*

Notes

- *It may take some time until all indications appear in the display.*
- *The TV channel does not appear during list display.*
- *The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode.*

Turning off the display

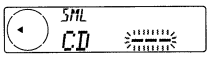
Press LIST again.

Watching the TV or video while listening to a CD or MD—Simultaneous Play

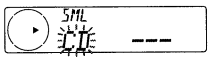
The simultaneous play function does not work while you are listening to the radio.

1 Press MENU, then press either side of DISC/PRST repeatedly until "Simul Sel" appears.

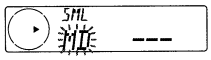
2 Press ENTER.



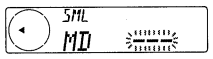
3 Press (–) side of SEEK/AMS.



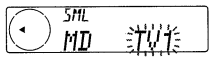
4 Press SOURCE repeatedly to select CD or MD.



5 Press (+) side of SEEK/AMS.



6 Press SOURCE repeatedly to select a TV or video.



7 Press ENTER.
Simultaneous Play starts.

If you are already watching the TV or video and want to listen to a CD or MD as well, follow the same steps above.

Returning to normal mode

To cancel the CD or MD, follow the steps above and select "– – –" in step 4.

To cancel the TV or video, follow the steps above and select "– – –" in step 6.

Note

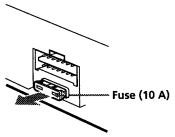
If you press ⏏ (EJECT) on a CD/MD unit while the unit is in simultaneous play mode, Simultaneous Play is canceled.

Additional Information

Maintenance

Fuse replacement

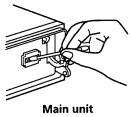
When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



Warning
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing OPEN, then detach it and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Main unit

Back of the front panel

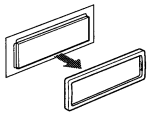
Notes

- *For safety, turn off the engine before cleaning the connectors, and remove the key from the ignition switch.*
- *Never touch the connectors directly with your fingers or with any metal device.*

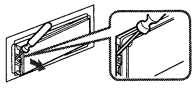
Dismounting the unit

1 Press the clip inside the front cover with a thin screwdriver, and gently pry the front cover free.

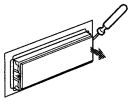
2 Repeat step 1 on the left side.
The front cover is removed.



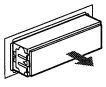
3 Use a thin screwdriver to push in the clip on the left side of the unit, then pull out the left side of the unit until the catch clears the mounting.



4 Repeat step 3 on the right side.



5 Slide the unit out of the mounting.



Connections

Caution

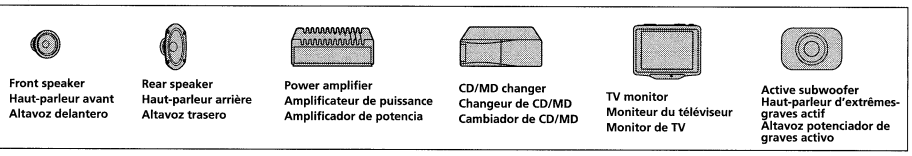
- This unit is designed for negative ground 12 V DC operation only.
- Be careful not to pinch any wires between a screw and the body of the car or this unit or between any moving parts such as the seat railing, etc.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.
- When installing a car without ACC (accessory) position on the ignition key switch, connect the red power input lead to the + 12 V power terminal which is energized at all times with the yellow lead.
- The use of optical instruments with this product will increase eye hazard.

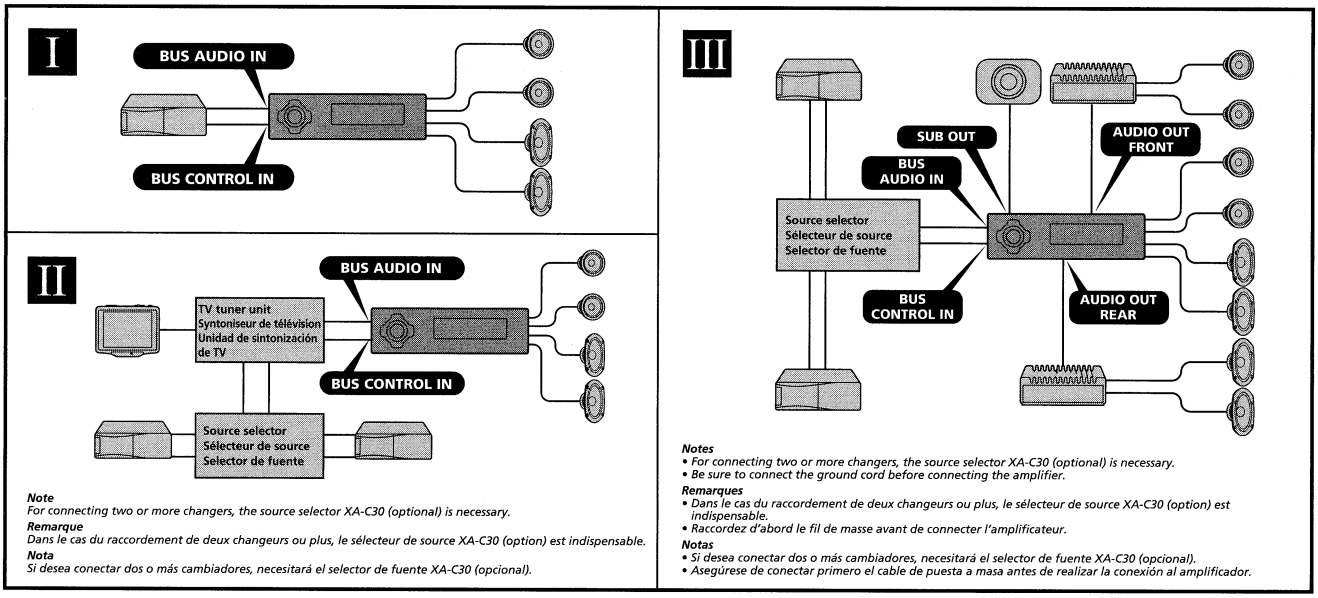
Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turned off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Connection diagram

Equipment used in illustrations (not supplied)





Note
For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

Remarque
Dans le cas du raccordement de deux changeurs ou plus, le sélecteur de source XA-C30 (option) est indispensable.

Nota
Si desea conectar dos o más cambiadores, necesitará el selector de fuente XA-C30 (opcional).

Notes
- *For connecting two or more changers, the source selector XA-C30 (optional) is necessary.*
- *Be sure to connect the ground cord before connecting the amplifier.*

Remarques
- *Dans le cas du raccordement de deux changeurs ou plus, le sélecteur de source XA-C30 (option) est indispensable.*
- *Raccordez d'abord le fil de masse avant de connecter l'amplificateur.*

Notas
- *Si desea conectar dos o más cambiadores, necesitará el selector de fuente XA-C30 (opcional).*
- *Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.*

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rearlside glass, it is necessary to connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Connexions

Précautions

- Cet appareil est exclusivement conçu pour fonctionner sur une tension de 12 V CC avec masse négative.
- Veiller à ne pas coincer de fils entre une vis et la carrosserie de la voiture ou cet appareil ou encore entre des pièces mobiles comme les glissières des sièges, etc.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- Veiller à ne pas raccorder le fil rouge d'entrée d'alimentation à la borne positive de 12 V qui est alimentée quand la clé de contact est sur la position accessoires.
- **Rassembler tous les fils de terre en un point de masse commun.**
- Brancher le câble jaune à un circuit libre de la voiture dont la capacité nominale est supérieure à la capacité du fusible de l'appareil. Si vous branchez cet appareil en série avec d'autres composants stéréo, le circuit de la voiture auquel ils sont raccordés doit afficher une capacité nominale supérieure à la somme des capacités individuelles de chaque composant. S'il n'y a pas de circuits de voiture affichant une capacité égale à la capacité du fusible de l'appareil, brancher l'appareil directement à la batterie. Si aucun circuit de voiture n'est disponible pour connecter cet appareil, brancher l'appareil à un circuit de voiture supérieur à la capacité du fusible de l'appareil de telle sorte que si l'appareil grille son fusible, aucun autre circuit ne soit coupé.
- En cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires), brancher le fil d'entreé d'alimentation rouge à la borne + 12 V qui est alimenteé en permanence par le fil jaune.
- L'utilisation d'instruments optiques peut être nuisible aux yeux.

Avertissement en cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

N'oubliez pas d'appuyer sur le bouton (OFF) de l'appareil pendant deux secondes après avoir coupé le moteur de façon à désactiver l'affichage de l'horloge.
Si vous appuyez brièvement sur (OFF), l'affichage de l'horloge n'est pas désactivé, ce qui provoque une usure de la batterie.

Schéma de connexion

Appareils utilisés dans les illustrations (non fournis)

Front speaker
Haut-parleur avant
Rear speaker
Haut-parleur arrière
Power amplifier
Amplificateur de puissance
CD/MD changer
Changeur de CD/MD
TV monitor
Moniteur du téléviseur
Active subwoofer
Haut-parleur d'extrêmes-graves actif

Remarques sur les câbles de commande et d'alimentation
- *Le fil de commande d'antenne (bleu) assure une alimentation de +12 V CC lorsque vous mettez le syntoniseur sous tension.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, il est nécessaire de raccorder le fil de commande de l'antenne électrique (bleu) ou le fil d'entrée d'alimentation des accessoires (rouge) à l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut être utilisée avec cet appareil.*

Connexion pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur la connexion des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Ne pas raccorder des haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleur de l'appareil sous peine de les endommager. Veiller à raccorder des haut-parleurs passifs à ces bornes.*

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Tenga cuidado de no atrapar ningún cable entre algún tornillo y la carrocería del automóvil o esta unidad o entre las partes móviles, como por ejemplo los raíles del asiento, etc.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables de entrada de alimentación **amarillo** y **rojo** solamente después de haber conectado los demás.
- Cerciórese de conectar el cable de entrada de alimentación rojo al terminal de 12 V positivo que se energice al poner la llave de encendido en la posición auxiliar.
- **Conecte todos los conductores de puesta a masa a un punto de masa común.**
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estereofónicos, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la de la suma de las capacidades de los fusibles de cada componente. Si ningún circuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito del automóvil con capacidad superior a la del fusible de la unidad, de forma que si se funde el fusible de ésta, no se interrumpa ningún otro circuito.
- Si realiza la instalación en un automóvil que no disponga de posición ACC (auxiliar) en el interruptor de la llave de encendido, conecte el cable rojo de entrada de alimentación al terminal de alimentación de +12 V que recibe energía permanentemente; para ello, utilice el cable amarillo.
- El uso de instrumentos ópticos con este producto aumenta el riesgo de daños oculares.

Advertencia sobre la instalación en un automóvil que no disponga de posición ACC (auxiliar) en el interruptor de la llave de encendido

Asegúrese de presionar (OFF) en la unidad durante dos segundos para desactivar la indicación del reloj una vez apagado el motor.
Si presiona (OFF) momentáneamente, la indicación del reloj no se desactivará y esto causará el desgaste de la batería.

Diagrama de conexiones

Equipos utilizados en las ilustraciones (no suministrados)

Front speaker
Altavoz delantero
Rear speaker
Altavoz trasero
Power amplifier
Amplificador de potencia
CD/MD changer
Cambiador de CD/MD
TV monitor
Monitor de TV
Active subwoofer
Altavoz potenciador de graves activo

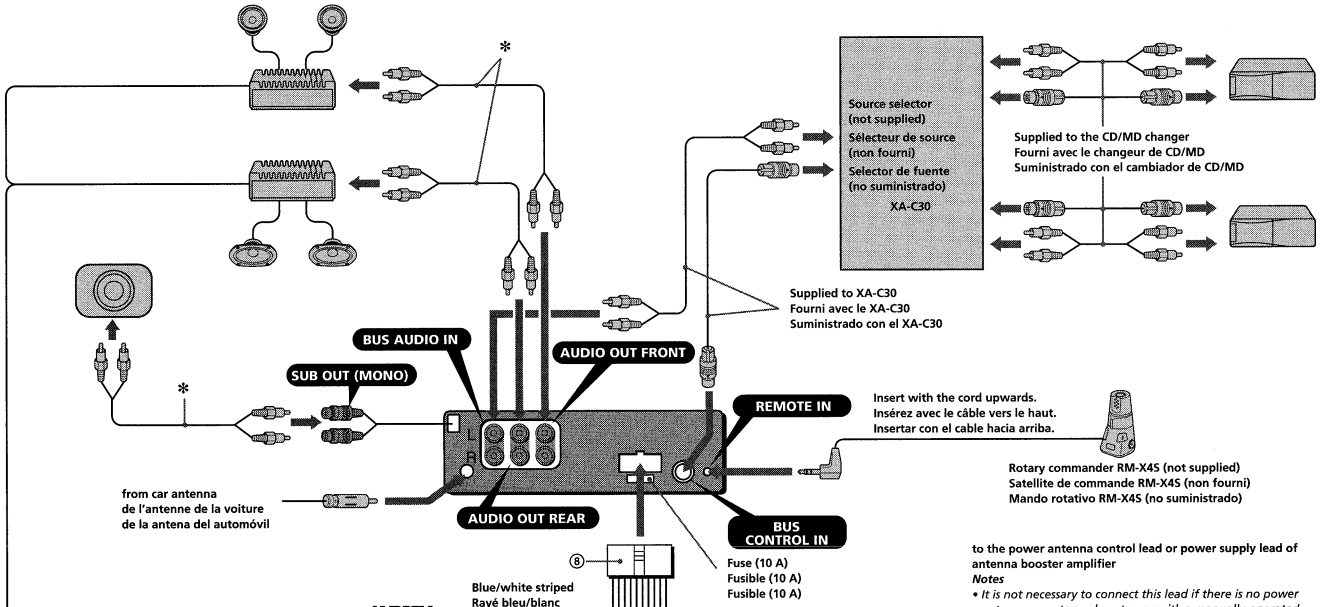
Notas sobre los cables de control y de fuente de alimentación
- *El cable de control (azul) de la antena motorizada suministra +12 V CC al activar el sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal traserolateral, será necesario conectar el cable de control (azul) de la antena motorizada o el cable de entrada (rojo) de alimentación auxiliar al terminal de alimentación del amplificador de antena existente. Para obtener información detallada, consulte a su proveedor.*
- *Con esta unidad no podrá utilizarse una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria siempre recibirá alimentación, aunque ponga la llave de encendido en la posición de apagado.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz derecho a los del izquierdo.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

Connection example
Exemple de connection
Ejemplo de conexiones

* RCA pin cord (not supplied)
Cordon à broche RCA (non fourni)
Cable con pines RCA (no suministrado)



to the power antenna control lead or power supply lead of antenna booster amplifier
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne
Remarques
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir les "Remarques sur les câbles de commande et d'alimentation".*

al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de antena
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

to the +12 V power terminal which is energized in the accessory position of the ignition key switch
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground to it first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

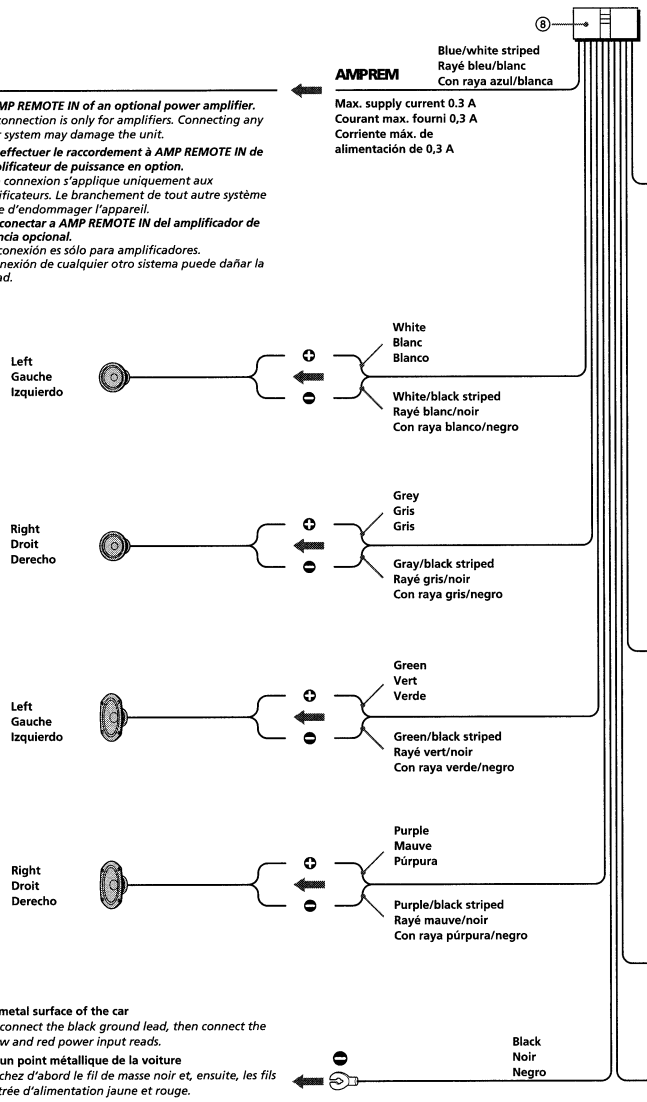
à la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est en permanence sous tension. Veillez à raccorder le fil noir en premier lieu.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir les "Remarques sur les câbles de commande et d'alimentation".*

al terminal de alimentación de +12 V que se activa en la posición auxiliar de la llave de encendido
Notas
- *Si no existe posición auxiliar, realice la conexión al terminal de alimentación (batería) de +12 V que reciba energía permanentemente. Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro.*
- *Si el automóvil incorpora una antena de recepción de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

To AMP REMOTE IN of an optional power amplifier.
This connection is only for amplifiers. Connecting any other system may damage the unit.

Pour effectuer le raccordement à AMP REMOTE IN de l'amplificateur de puissance en option.
Cette connexion s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

Para conectar a AMP REMOTE IN del amplificador de potencia opcional.
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.



to a metal surface of the car
First connect the black ground lead, then connect the yellow and red power input reads.

vers un point métallique de la voiture
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.

a un punto metálico del automóvil
En primer lugar conecte el conductor de puesta a masa negro y, a continuación, los cables de entrada de alimentación amarillo y rojo.

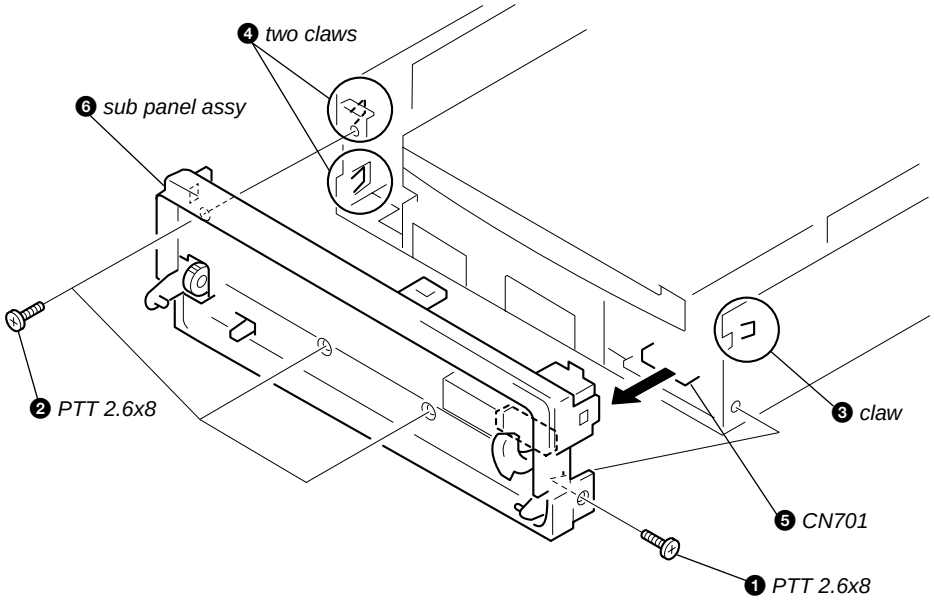
to the interface cable of a car telephone
vers le cordon de liaison d'un téléphone de voiture
al cable de interfaz de un teléfono para automóvil

to the +12 V power terminal which is energized at all times
Be sure to connect the black ground to it first.
à la borne +12 V qui est alimentée en permanence
Raccordez d'abord le fil de masse noir.
al terminal de alimentación de +12 V que esté permanentemente energizado
Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro.

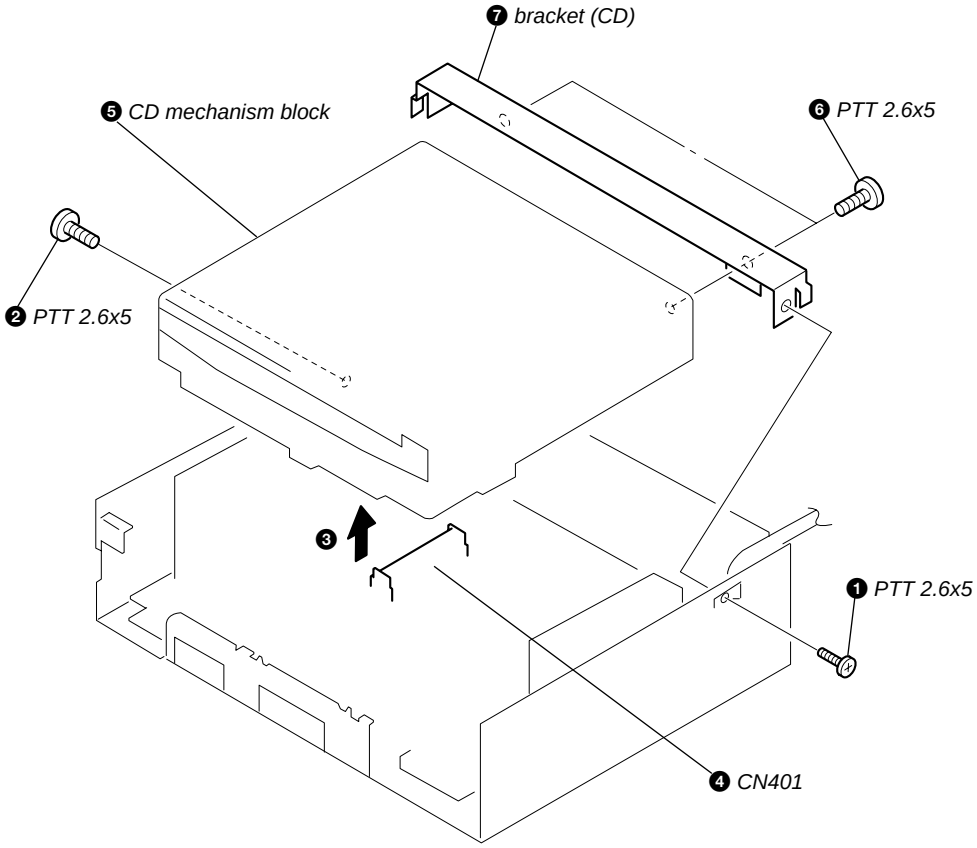
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

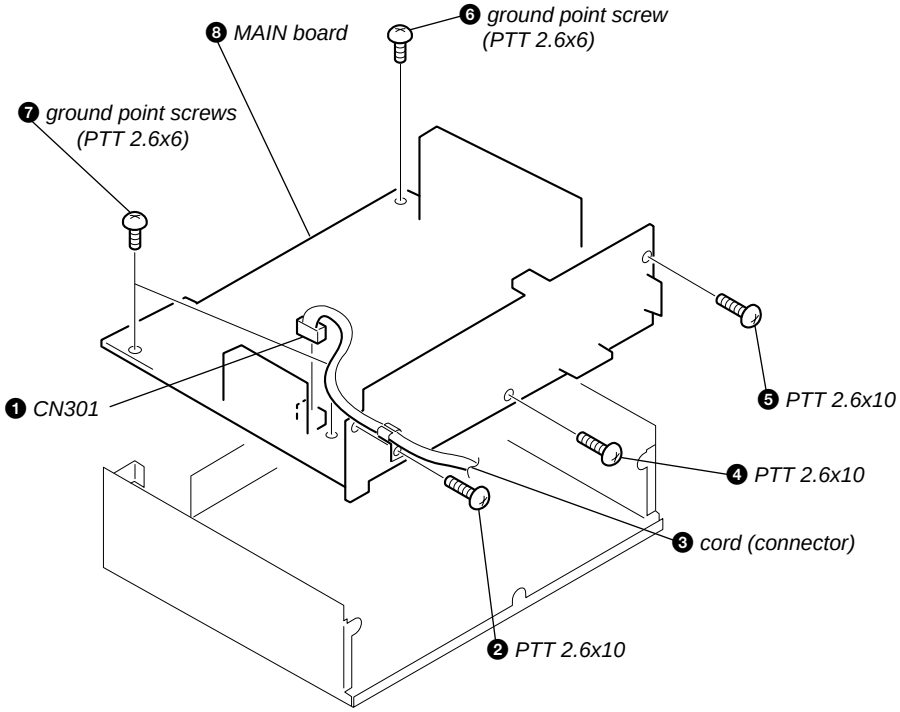
2-1. SUB PANEL ASSY



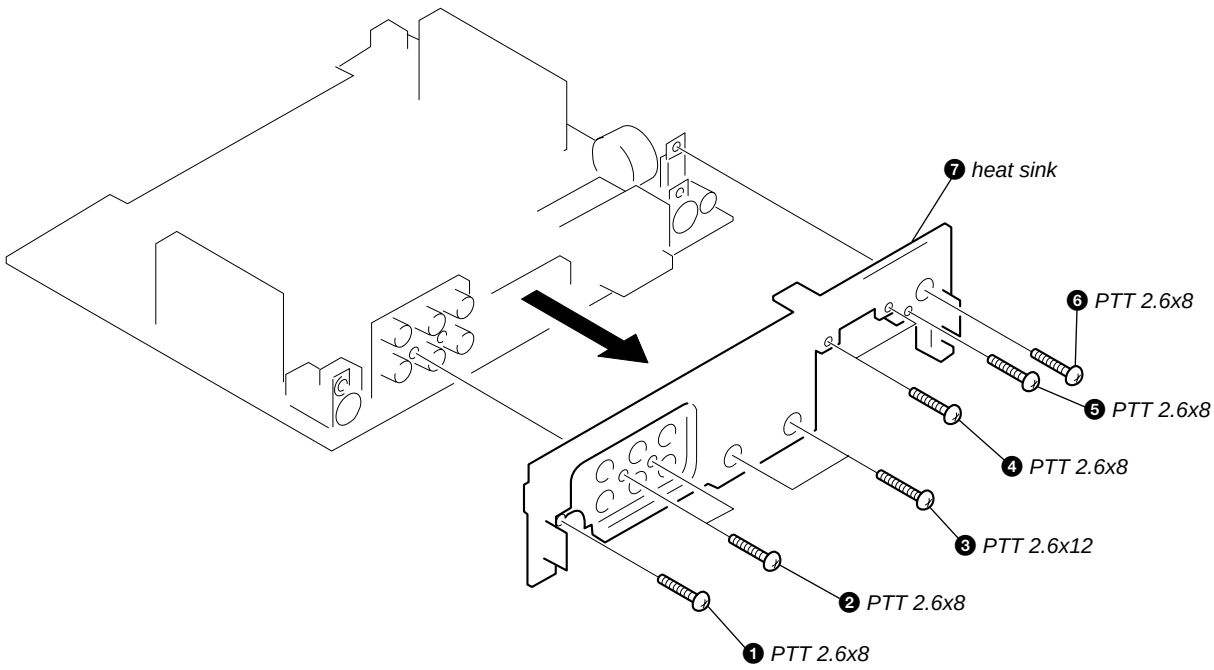
2-2. CD MECHANISM BLOCK



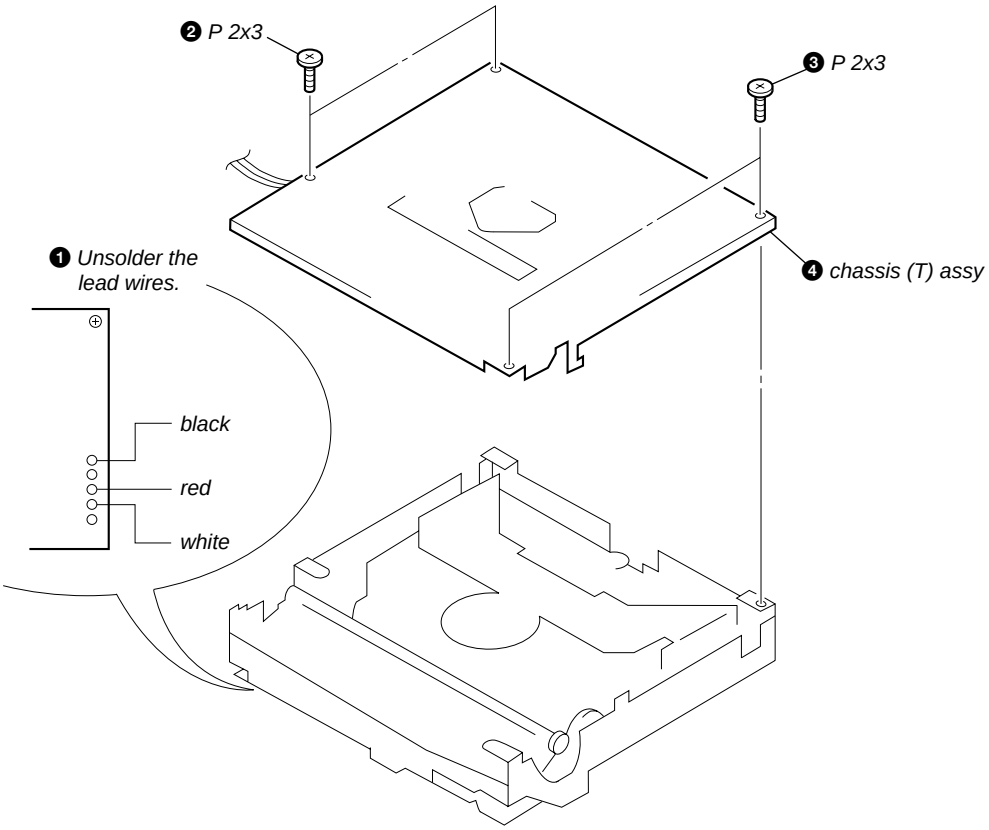
2-3. MAIN BOARD



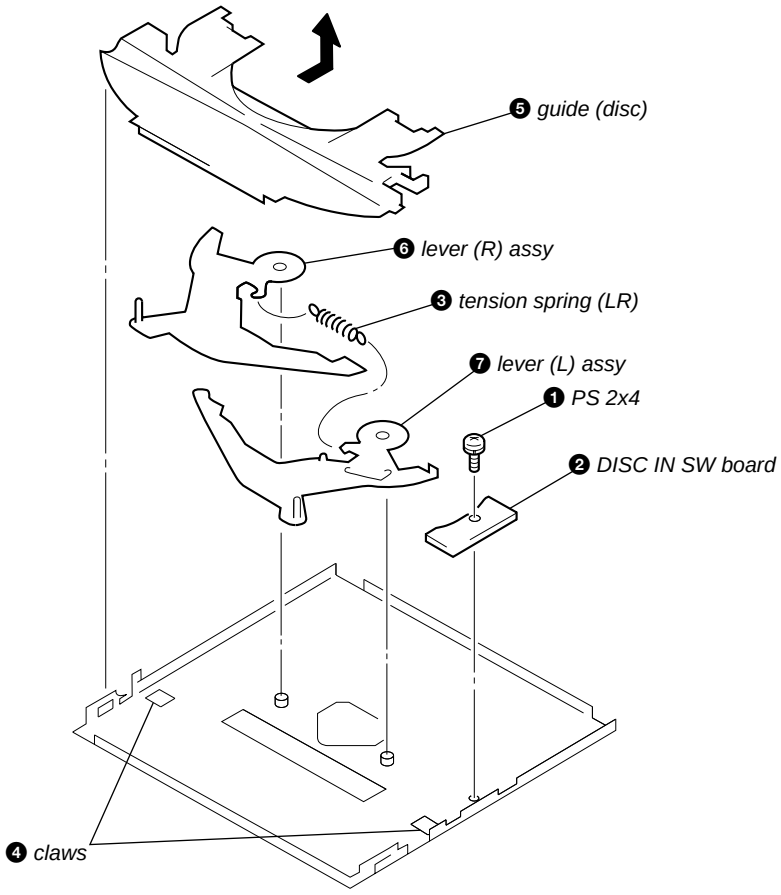
2-4. HEAT SINK



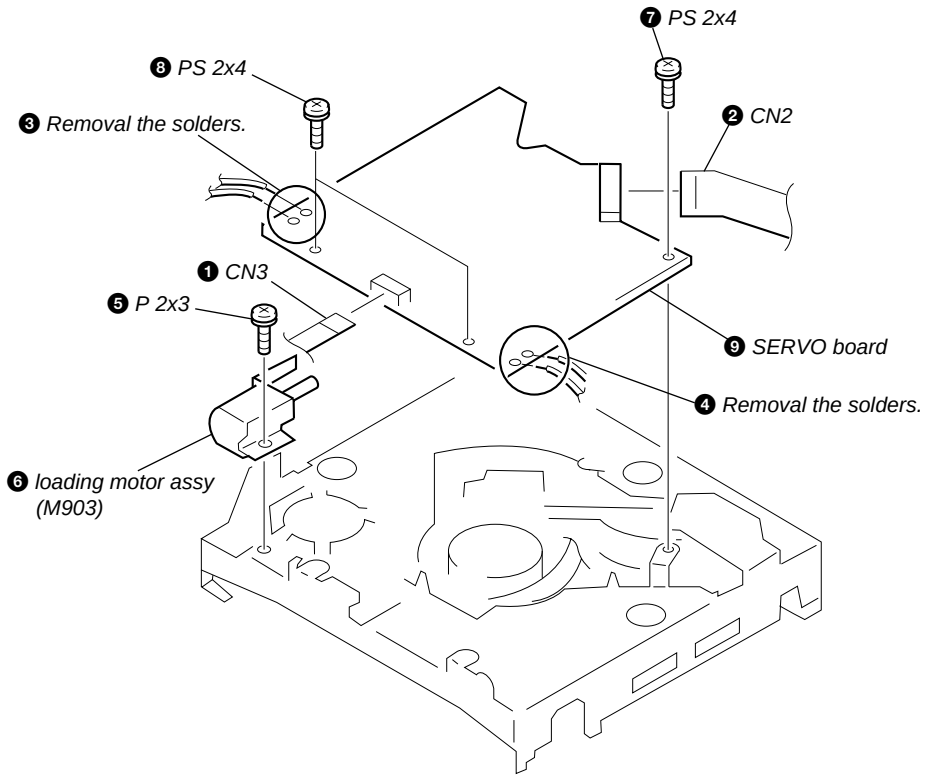
2-5. CHASSIS (T) ASSY



2-6. LEVER ASSY



2-7. SERVO BOARD



2-8. ARM ROLLER ASSY

• When installing, take note of the positions arm (roller) and washers. (Fig. 1)

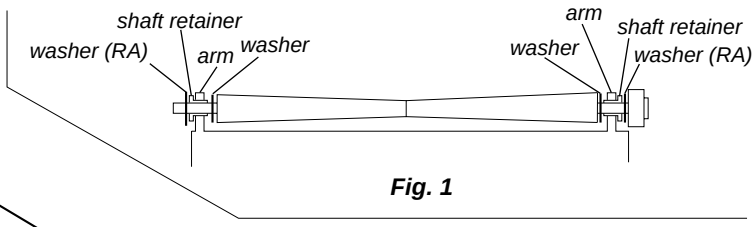
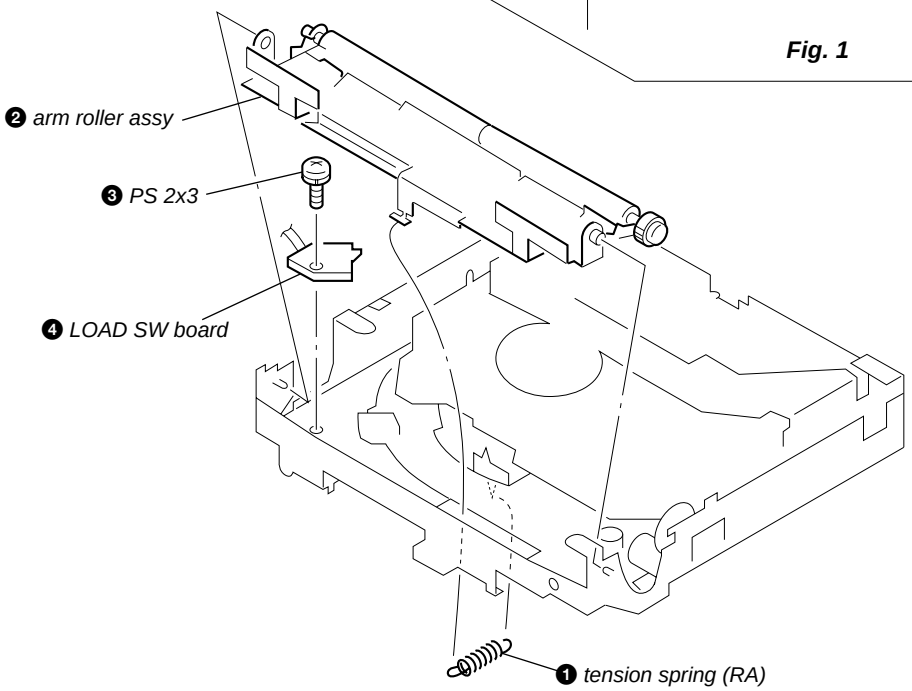
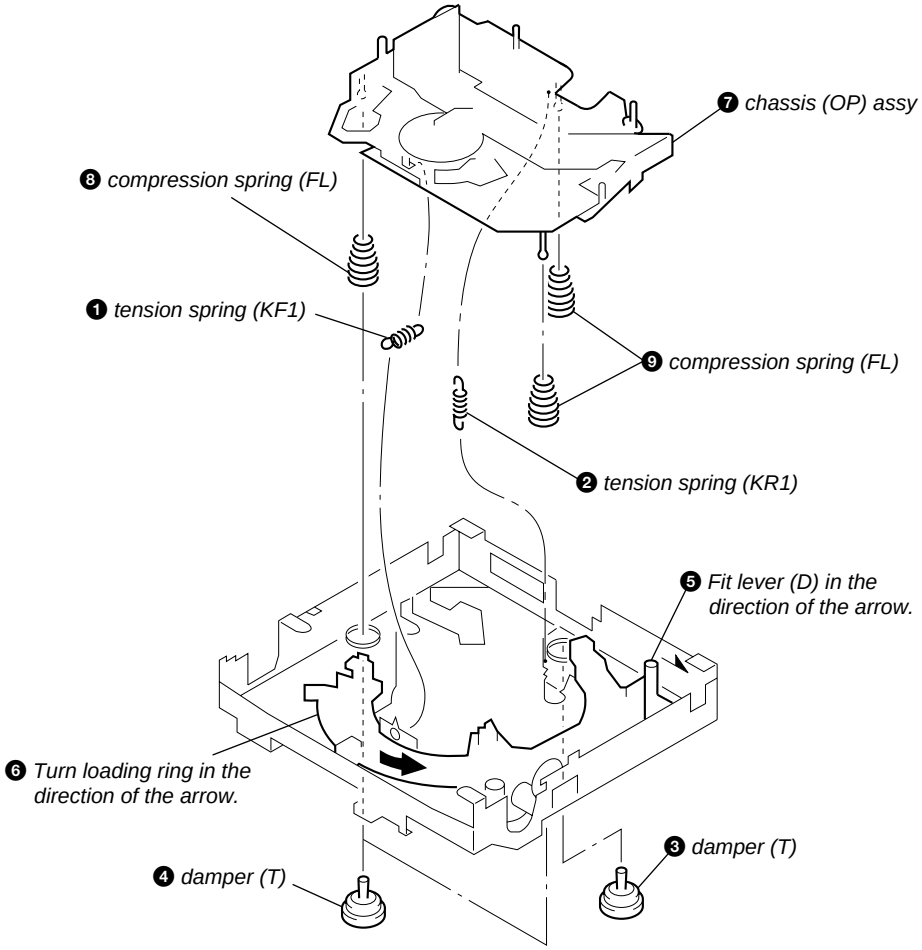


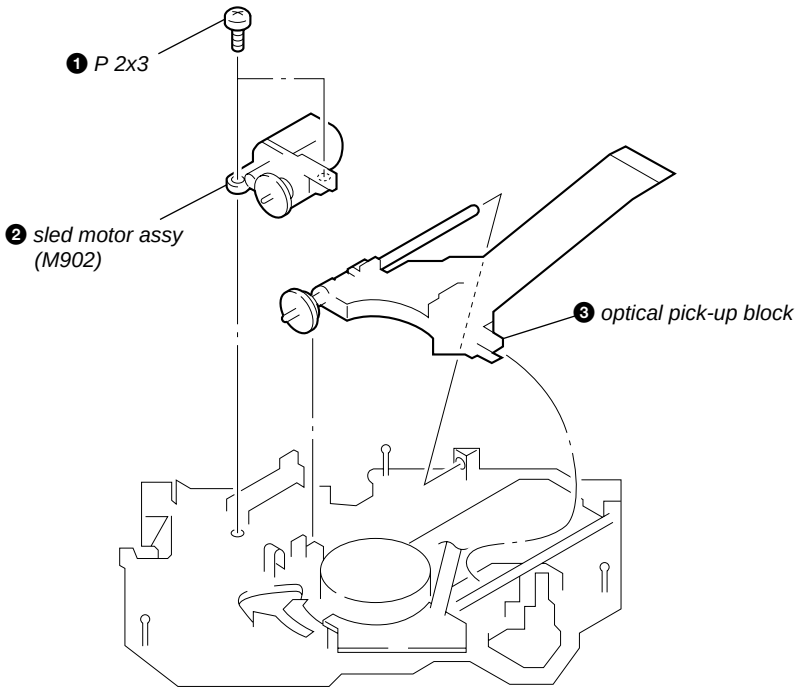
Fig. 1



2-9. CHASSIS (OP) ASSY


❼ chassis (OP) assy
❽ compression spring (FL)
❶ tension spring (KF1)
❾ compression spring (FL)
❷ tension spring (KR1)
❺ Fit lever (D) in the direction of the arrow.
❻ Turn loading ring in the direction of the arrow.
❸ damper (T)
❹ damper (T)

2-10. OPTICAL PICK-UP BLOCK



SECTION 3
DIAGRAMS

3-1. IC PIN DESCRIPTIONS

• IC501 CXD2598Q (DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	DVDD	—	Digital power supply pin
2	DVSS	—	Digital ground
3	SOUT	O	Servo brock serial data output (Not used.)
4	SOCK	O	Servo brock serial data read clock output (Not used.)
5	XOLT	O	Servo brock serial data latch output (Not used.)
6	SQSO	O	Sub Q 80 bit, PCM peak and level data output. CD TEXT data output
7	SQCK	I	Clock input from SQSO read output.
8	SCSY	I	Fixed at “L”.
9	SBSO	O	Serial output of sub-P to W. (Not used.)
10	EXCK	I	Clock input from SBSO read output. (Fixed at “L”)
11	XRST	I	System reset (“L”: Reset)
12	STSM	I	System mute input (Fixed at “L”)
13	DATA	I	Serial data input from CPU.
14	XLAT	I	Latch input from CPU. Latch serial data at the falling edge.
15	CLOK	I	Serial data transfer clock input from CPU.
16	SENS	O	SENS output for CPU.
17	SCLK	I	Clock input from SENS serial data read.
18	ATSK	I/O	Input/output for anti-shock.
19	WFCK	O	WFCK (Write Flame Clock) output (Not used.)
20	XUGF	O	XUGF output (Not used.)
21	XPCK	O	XPCK output (Not used.)
22	GFS	O	GFS output
23	C2PO	O	C2PO output (Not used.)
24	SCOR	O	“H” output at either detection, sub code sync S0 or S1.
25	C4M	O	4.2336 MHz output (Not used.)
26	WDCK	O	Word clock input f=2Fs (Not used.)
27	COUT	I/O	Track number count signal input/output (Not used.)
28	MIRR	I/O	Mirror signal input/output (Not used.)
29	DVSS	—	Digital ground
30	DVDD	—	Digital power supply pin
31	DFCT	I/O	Diffect signal input/output (Not used.)
32	FOK	I/O	Focus OK signal output
33	PWM1	I	External control input of spindle motor.
34	LOCK	I/O	Lock signal input/output
35	MDP	O	Servo control output of spindle motor.
36	SSTP	I	Disc most inner track detection signal input
37	FSTIO	I/O	2/3 frequency division output of pins ⑧⑥ and ⑧⑦. (Not used.)
38	SFDR	O	Sled drive output
39	SRDR	O	Sled drive output
40	TFDR	O	Tracking drive output
41	TRDR	O	Tracking drive output
42	FFDR	O	Focus drive output
43	FRDR	O	Focus drive output
44	DVDD	—	Digital power supply pin
45	DVSS	—	Digital ground
46	TEST	I	Test pin (Fixed at “L”)
47	TES1	I	Test pin (Fixed at “L”)
48	XTSL	I	X’tal select input (“L”: 16.9344 MHz, “H”: 33.8688 MHz)
49	VC	I	Center voltage input
50	FE	I	Focus error signal input
51	SE	I	Sled error signal input

Pin No.	Pin Name	I/O	Pin Description
52	TE	I	Tracking error signal input
53	CE	I	Center servo analog input
54	RFDC	I	RF signal input
55	ADIO	O	Test pin (Not used.)
56	AVSSO	—	Analog ground
57	IGEN	I	Constant current input from OP amplifier.
58	AVDDO	—	Analog ground
59	ASYO	O	EFM full-swing output (“L”: VSS, “H”: VDD)
60	ASYI	I	Asymmetry comparate voltage input
61	RFAC	I	EFM signal input
62	AVSS3	—	Analog ground
63	CLTV	I	VCO control voltage input from master.
64	FILO	O	Filter output for master PLL (slave=digital PLL)
65	FILI	I	Filter input from master PLL.
66	PCO	O	Charge pump output for master PLL.
67	AVDD3	—	Analog power supply pin
68	BIAS	I	Asymmetry circuit constant current input
69	VCTL	I	VCO2 control input from wideband EFM PLL. (Not used.)
70	V16M	O	VCO2 oscillator output for wideband EFM PLL. (Not used.)
71	VPCO	O	Charge pump output for wideband EFM PLL. (Not used.)
72	DVSS	—	Digital ground
73	MD2	I	Digital out ON/OFF control input (“L”: OFF, “H”: ON)
74	DOUT	O	Digital out output
75	ASYE	I	Asymmetry circuit ON/OFF input (“L”: OFF, “H”: ON)
76	DVDD	—	Digital power supply pin
77	LRCK	O	D/A interface LR clock output (f=Fs)
78	LRCKI	I	D/A interface LR clock input
79	PCMD	O	D/A interface serial data output (2’s COMP, MSB fast)
80	PCMD	I	D/A interface serial data input (2’s COMP, MSB fast)
81	BCK	O	D/A interface bit clock output
82	BCKI	I	D/A interface bit clock input
83	EMPH	O	Emphasis ON/OFF signal output
84	EMPHI	I	Emphasis ON/OFF signal input (“H”: ON, “L”: OFF)
85	XVDD	—	Power supply for master clock.
86	XTAI	I	X’tal oscillator input from master clock (16.9344 MHz).
87	XTAO	O	X’tal oscillator output for master clock (16.9344 MHz) (Not used.)
88	XVSS	—	Ground pin for master clock.
89	AVDD1	—	Analog power supply pin
90	AOUT1	O	Lch analog output (Not used.)
91	AIN1	I	Lch OPAMP input (Not used.)
92	LOUT1	O	Lch LINE output (Not used.)
93	AVSS1	—	Analog ground
94	AVSS2	—	Analog ground
95	LOUT2	O	Rch LINE output (Not used.)
96	AIN2	I	Rch OPAMP input (Not used.)
97	AOUT2	O	Rch analog output (Not used.)
98	AVDD2	—	Analog power supply pin
99	RMUT	O	Rch “0” detect Flug (Not used.)
100	LMUT	O	Lch “0” detect Flug (Not used.)

• IC5 CXP84640-072Q (CD SYSTEM CONTROL) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	ITRPT	—	Not used in this set.
2, 3	—	—	Not used in this set.
4, 5	NCO	—	Not used in this set.
6	OPEN	I	Front panel open detection input
7	CLOSE	O	Front panel close control output
8	LINKOFF	I	Bus interface link input
9	NCO	—	Not used in this set.
10	$\overline{\text{D SW}}$	I	Down switch input (SW4)
11	SSTP	I	Limit switch input (SW3)
12, 13	NCO	—	Not used in this set.
14, 15	—	—	Not used in this set.
16	EMPH O	O	De-emphasis ON/OFF control output
17	CDMON	O	CD mechanism deck power control output
18	CD ON	O	CD power control output
19	A MUT	O	System attenuate control output
20	$\overline{\text{LD ON}}$	O	Laser power ON/OFF control output
21	$\overline{\text{CD RST}}$	O	CD system reset output
22	HOLD	O	Hold switch output
23	AGC CONT	O	AGC control output
24	—	—	Not used in this set.
25	PH3	I	Not used in this set.
26	$\overline{\text{TSTIN0}}$	I	Not used in this set.
27	$\overline{\text{TSTIN1}}$	I	Not used in this set.
28	$\overline{\text{TST.CLV}}$	I	Not used in this set.
29	NCO	—	Not used in this set.
30	$\overline{\text{RESET}}$	I	System reset input (“L”=Reset)
31	X IN	I	X’tal oscillator input from system clock. (10 MHz)
32	$\overline{\text{X OUT}}$	O	X’tal oscillator output for system clock. (10 MHz)
33	GND	—	Analog ground
34	$\overline{\text{XT OUT}}$	O	Not used in this set.
35	XT IN	I	Not used in this set.
36	AVSS	—	A/D converter ground
37	AVREF	I	A/D converter reference voltage input
38	TEP L	I	Not used in this set.
39	TEP H	I	Not used in this set.
40	SLED–	I	Sled drive input
41	PH2	I	Not used in this set.
42	SEK/SMET	I	Fixed at “H” in this set.
43	GFS/MNT2 SEL	I	Fixed at “H” in this set.
44	SC-JIG ON/OFF	I	Fixed at “H” in this set.
45	SCLK	O	CD-TEXT data read clock output
46	LOCK	I/O	Lock signal input/output
47	—	—	Not used in this set.
48	SCK2	O	Sub Q read clock output
49	SI2	I	Sub Q 80 bit, PCM peak and level data 16 bit input.
50	—	—	Not used in this set.
51	BUS CLK	I/O	Bus system serial clock input/output
52	BUS SI	I	Bus system serial interface input
53	BUS SO	O	Bus system serial interface output
54	F OK	I	Focus OK signal input
55	GFS	I	GFS signal detection input
56	TEST MODE	I	Fixed at “H” in this set.

Pin No.	Pin Name	I/O	Pin Description
57	SENS	I	SENS signal input
58	—	—	Not used in this set.
59	—	—	Not used in this set.
60	BU.IN	I	Back-up power detection input
61	$\overline{\text{BUSON}}$	I	Bus on control input
62	$\overline{\text{IN SW}}$	I	Disc in switch input (SW1)
63	$\overline{\text{SELF SW}}$	I	Self switch input (SW2)
64	SCOR	O	Sub-code sync output
65	CD-CKO	O	CD signal process serial clock input
66	LM LOD	O	Loading motor control output
67	CD DATA	O	CD signal process serial data output
68	CD-XLAT	O	CD signal process serial data latch output
69	LM-EJ	O	Loading motor control output
70	DRV-OE	O	Focus/tracking coil/sled motor control output
71	MD2	O	Digital out ON/OFF control output (“L”: OFF, “H”: ON)
72	VDD	—	Power supply pin
73	NIH	I	Fixed at “H” in this set.
74	V/Z	I	Fixed at “H” in this set.
75	PH1	I	Not used in this set.
76	—	—	Not used in this set.
77	DOUT-SEL	I	Fixed at “H” in this set.
78 – 80	—	—	Not used in this set.

• IC502 MB90574PMT-G-263-BND (SYSTEM CONTROL) (MAIN BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	NIL	I	Not used (fixed at “L”)
2	AMSIN	I	Input terminal of whether a music is present or not is detected at auto music sensor “L”: music is not present, “H”: music is present Not used (fixed at “L”)
3	AMSON	O	Tape auto music sensor control ssignal output terminal “L” is output to lower the gain for audio level at FF/REW mode Not used (open)
4	SP LAT	O	Serial data latch pulse output for spectrum analyzer section to the liquid crystal display drive controller (IC701)
5	ATT	O	Audio line muting on/off control signal output terminal “L”: muting on
6	SYSRST	O	System reset signal output to the MD mechanism controller (IC501), liquid crystal display drive controller (IC701) and SONY bus interface (IC601) “L”: reset
7	F/R	O	Tape detection signal output terminal “L”: reverse side, “H”: forward side Not used (open)
8	VCC	—	Power supply terminal (+5 V)
9	MTLIN	I	Auto metal detection signal input terminal Not used (fixed at “L”)
10	E2PSIO	I/O	Two-way data bus for tuner EEPROM with the FM/AM tuner unit (TUX201)
11	E2PCKO	O	Tuner EEPROM bus clock signal output to the FM/AM tuner unit (TUX201)
12	FLS SI	I	Input terminal at the flash memory data write mode Front panel open/close detection signal input terminal “L” is input when the front panel is closed
13	FLS SO	O	Output terminal at the flash memory data write mode Display serial data output to the liquid crystal display driver (IC901)
14	BUS-ON	O	Bus on/off control signal output to the CD mechanism controller (IC5), liquid crystal display drive controller (IC701) and SONY bus interface (IC601) “L”: bus on
15	BEEP	O	Beep sound drive signal output terminal
16	NCO	O	Not used (open)
17	UNISI	I	Serial data input from the SONY bus interface (IC601)
18	UNISO	O	Serial data output to the SONY bus interface (IC601)
19	UNICKO	O	Serial clock signal output to the CD mechanism controller (IC5), liquid crystal display drive controller (IC701) and SONY bus interface (IC601)
20	IFWIDTH	I	Tuner wide/narrow select signal input terminal “L”: wide, “H”: narrow Not used (fixed at “L”)
21	SWSHIFT	O	When the radio is tuned at the frequency to produce beats, shift the frequency of the signal from the D/D converter so as to produce no beats.
22, 23	NCO	O	Not used (open)
24	SIRCS	I	Sircs remote control signal input from the remote control receiver (IC951)
25	DSPSI	I	Serial data input from the CXD2726Q (IC805)
26	DSPSO	O	Serial data output to the CXD2726Q (IC805)
27	DSPCKO	O	Serial data transfer clock signal output to the CXD2726Q (IC805) and liquid crystal display drive controller (IC701)
28	DSPPLL	O	PLL clock control signal output to the CXD2726Q (IC805) At “L” is output: fixed at “L” is PLCLK (pin ㊽ of IC805 CXD2726Q) At “H” is output: PLL clock signal output to the PLCLK (pin ㊽ of IC805 CXD2726Q)
29	DSPMST	O	Bit clock (BCK) and L/R sampling (LRCK) signal master/slave mode selection signal output to the CXD2726Q (IC805) “L”: master mode, “H”: slave mode
30	NCO	O	Not used (open)
31	$\overline{\text{VOLATT}}$	O	Pre amplifier muting on/off control signal output to the electrical volume (IC301) “L”: muting on
32	TU ATT	O	Muting on/off control signal output of the FM/AM tuner signal “L”: muting on
33	VSS	—	Ground terminal
34	C	—	Connected to coupling capacitor for the power supply
35	DSPLAT	O	Serial data latch pulse output to the CXD2726Q (IC805)
36	$\overline{\text{DSPRST}}$	O	Reset signal output to the CXD2726Q (IC805) “L”: reset

Pin No.	Pin Name	I/O	Pin Description
37	ANT CUT	O	Tuner system power supply on/off control signal output terminal “H” tuner power on Not used (open)
38	DVCC	—	Power supply terminal (+5 V) (for D/A converter)
39	DVSS	—	Ground terminal (for D/A converter)
40, 41	NCO	O	Not used (open)
42	AVCC	—	Power supply terminal (+5 V) (for analog system)
43	AVRH	I	Reference voltage (+5 V) input terminal (for A/D converter)
44	AVRL	I	Reference voltage (0 V) input terminal (for A/D converter)
45	AVSS	—	Ground terminal (for analog system)
46	KEYIN0	I	Key0 input terminal (A/D input)
47	KEYIN1	I	Key1 input terminal (A/D input)
48	RCIN0	I	Rotary remote commander key input terminal (A/D input)
49	DSTSEL	I	Destination setting terminal (A/D input) (fixed at “L”)
50	QUALITY	I	Noise level detection signal input at SEEK mode (A/D input)
51	FM AGC	I	FM AGC detection signal input from the FM/AM tuner unit (TUX201) (A/D input)
52	MPTH	I	Multi-path detection signal input from the RDS decoder (IC201) (A/D input) Not used (open)
53	VSM	I	FM and AM signal meter voltage detection input from the FM/AM tuner unit (TUX201) (A/D input)
54	VCC	—	Power supply terminal (+5 V)
55	AMPON	O	Standby on/off control signal output terminal “L”: standby mode, “H”: amplifier on
56	NS MASK	O	Discharge control signal output for the noise detection circuit “H”: discharge
57	MTLOUT	O	METAL output terminal (METAL on at “L” output) Not used (open)
58	REEL	I	Rotation detect signal input terminal Not used (fixed at “L”)
59	POS0	I	Tape position (EJECT/FF/REW/REV/FWD mode) detect input from the tape operation switch on the deck mechanism Not used this function (fixed at “L”) POS0: “L”: EJECT mode, “H”:others mode POS1: “L”: FF and FWD mode, “H”: others mode POS2: “L”: REW mode,“H”: others mode POS3: “L”: REV and EJECT mode, “H”: others mode
60	POS1	I	
61	POS2	I	
62	POS3	I	
63	VSS	—	Ground terminal
64	NCO	I	Not used (fixed at “L”)
65	FSW IN	I	Frequency count terminal from power control (IC302)
66	LMLOD	O	Loading motor control signal output terminal “H” active (For the loading direction and forward side operation) Not used (open)
67	CMON	O	Capstan/reel motor control signal output terminal “H”: motor on Not used (open)
68	TAPE ON	O	Tape system power supply on/off control signal output terminal “H”: tape on Not used (open)
69	FLASH W	I	Internal flash memory data write mode detection signal input terminal
70	I2CSIO	I/O	Two-way data I2C bus with the FM/AM tuner unit (TUX201), RDS decoder (IC201) and electrical volume (IC301)
71	I2CCKO	O	I2C bus clock signal output to the FM/AM tuner unit (TUX201), RDS decoder (IC201) and electrical volume (IC301)
72	RCIN1	I	Rotary remote commander shift key input terminal
73	X1A	O	Sub system clock output terminal (32.768 kHz)
74	X0A	I	Sub system clock input terminal (32.768 kHz)
75	DAVN	I	Data transmit completed detection signal input from the RDS decoder (IC201) “L” active Not used (open)
76	$\overline{\text{DISCON\_IN}}$	I	CD/MD on/off control signal input from the CD mechanism controller (IC5)
77	BUIN	I	Battery detection signal input from the SONY bus interface (IC601) and battery detect circuit “L” is input at low voltage

Pin No.	Pin Name	I/O	Pin Description
78	DSPRADY	I	Transfer enable signal input from the CXD2726Q (IC805) “L”: transfer prohibition, “H”: transfer permission
79	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of “H”
80	ADON	O	A/D converter power control signal output terminal When the KEYACK (pin ⑦⑨) that controls reference voltage power for key A/D conversion input is active, “L” is output from this terminal to enable the input
81	ACCIN	I	Accessory detection signal input terminal “L”: Accessory on
82	FLASH ON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC901) “H”: power on
83	PWON	O	Main system power supply on/off control signal output terminal “H”: power on
84	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode “L”: test mode, Normally: fixed at “H”
85	RAMBU	I	Internal RAM reset detection signal input from the RN5VD33AA (IC504) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset
86	HSTX	I	Hardware standby input terminal “L” hardware standby mode Reset signal input inset
87	MD2	I	Setting terminal for the CPU operational mode (fixed at “L” in this set)
88	MD1	I	Setting terminal for the CPU operational mode (fixed at “H” in this set)
89	MD0	I	Setting terminal for the CPU operational mode (fixed at “H” in this set)
90	RSTX	I	System reset signal input from the reset signal generator (IC503) and reset swich (S101) “L”: reset “L” is input for several 100 msec after power on, then it changes to “H”
91	VSS	—	Ground terminal
92	X0	I	Main system clock input terminal (3.68 MHz)
93	X1	O	Main system clock output terminal (3.68 MHz)
94	VCC	—	Power supply terminal (+5 V)
95	ILLIN	I	Auto dimmer control illumination line detection signal input terminal “L” is input at dimmer detection
96	$\overline{\text{TELATT}}$	I	Telephone detection signaal input terminal At input of “H”, the signal is attenuated by –20 dB
97	EMPH	I	Emphasis control signal input from the CD Mechanism controller (IC5)
98	F CH	O	Frequency changing terminal from the power control (IC302) “H”: frequency change
99 – 102	NCO	O	Not used (open)
103	4V SEL	I	Input terminal of whether line driver is mounted or not is detected “L”: line driver is not mounted, “H”: line driver is mounted
104	COL SEL	I	Setting terminal for the illumination color “L”: 2 color, “H”: 1 (red) color
105	$\overline{\text{AMPATT}}$	O	Power amplifier muting on/off control signal output terminal “H”: muting on Not used (open)
106	$\overline{\text{BOOT}}$	O	Serial data output to the liquid crystal display drive controller (IC701)
107	DSPGAIN	O	Not used (open)
108	NCO	O	Not used (open)
109	MODELSEL0	I	Setting terminal for the internal mechanism tape or CD/MD “L”: tape, “H”: CD/MD (fixed at “H” in this set)
110	DSPON	O	Power supply on/off control signal output for the CXD2726Q (IC805) “H”: DSP on
111	MODELSEL1	I	Setting terminal for the internal mechanism CD or MD “L”: CD, “H”: MD (fixed at “H” in this set)
112	BAND	I	Not used (fixed at “L”)
113	TUNON	O	Tuner system power supply on/off control signal output terminal “H”: tuner power on
114	DOORSW	I	Not used (fixed at “L”)
115	REIN1	I	Dial pulse input of the rotary encoder (RE901) (A phase input) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)

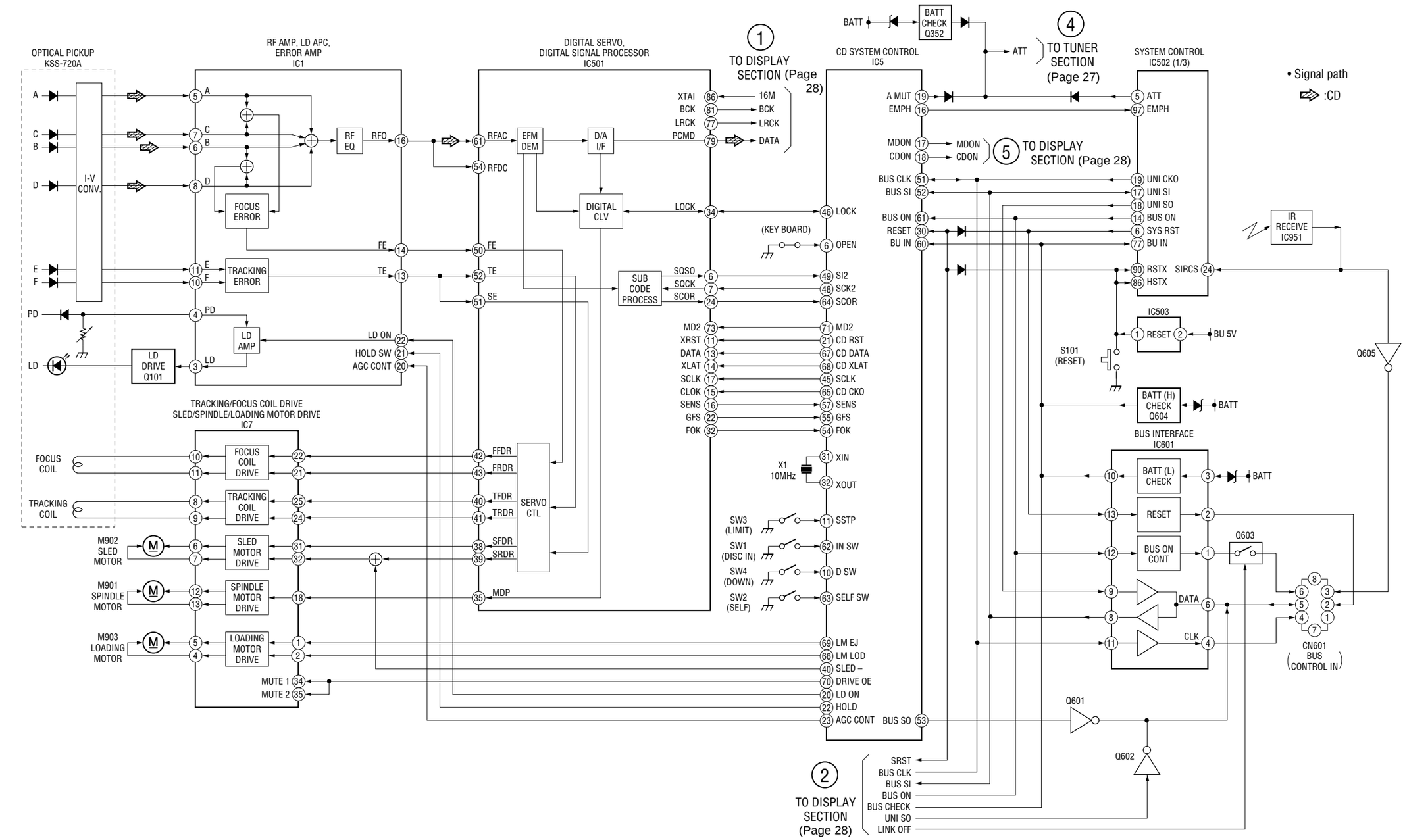
Pin No.	Pin Name	I/O	Pin Description
116	REIN0	I	Dial pulse input of the rotary encoder (RE901) (B phase input) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)
117	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input from the nose detection swich (S102) "L": front panel is attached
118	DOORIND	O	LED drive signal output of the CD disc slot illumination and ⏏ indicator (LED771 – 773, LSW771) "H": LED on "H"is output to turn on LED when front panel is opened
119	VSS	—	Ground terminal
120	DOLBY	O	Dolby control terminal "H": dolby on Not used (open)

• IC805 CXD2726Q-4 (DIGITAL SIGNAL PROCESSOR, DIGITAL FILTER, D/A CONVERTER) (DSO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	DGND	—	Ground terminal (digital system)
2 – 15	T.P	I	Input terminal for the test (fixed at “L”)
16 – 21	TST0 – TST5	I	Input terminal for the test (fixed at “L”)
22 – 24	JPE1 – JPE3	I	External condition jump terminal “H”: condition jump (fixed at “L”)
25	DVDD	—	Power supply terminal (+3.3 V) (digital system)
26	DA1GND	—	Ground terminal (for D/A converter 1) (analog system)
27	DA1LO	O	D/A converter 1 (L-ch side) output terminal Analog signal output for front side (L-ch side) output in this set
28	DA1VDD	—	Power supply terminal (+3.3 V) (for D/A converter 1) (analog system)
29	DA1RO	O	D/A converter 1 (R-ch side) output terminal Analog signal output for rear side (L-ch side) output in this set
30	DA1VDD	—	Power supply terminal (+3.3 V) (for D/A converter 1) (analog system)
31	DA1GND	—	Ground terminal (for D/A converter 1) (analog system)
32	ADLVDD	—	Power supply terminal (+3.3 V) (for L-ch side A/D converter) (analog system)
33	ADLGND	—	Ground terminal (for L-ch side A/D converter) (analog system)
34	ADLREF	O	Connected to the bus control for A/D converter (for L-ch side)
35	ADLIN	I	A/D converter (L-ch side) analog input terminal Tuner and bus audio input signal (L-ch side) in this set
36	DA2GND	—	Ground terminal (for D/A converter 2) (analog system)
37	DA2VDD	—	Power supply terminal (+3.3 V) (for D/A converter 2) (analog system)
38	DA2LO	O	D/A converter 2 (L-ch side) output terminal (Not used.)
39	MCKVDD	—	Power supply terminal (+3.3 V) (for master clock) (analog system)
40	MCKO	O	System clock output terminal (16.9344 MHz)
41	MCKI	I	System clock input terminal (16.9344 MHz)
42	MCKGND	—	Ground terminal (for master clock) (analog system)
43	DA2RO	O	D/A converter 2 (R-ch side) output terminal Analog signal output for sub woofer output in this set
44	DA2VDD	—	Power supply terminal (+3.3 V) (for D/A converter 2) (analog system)
45	DA2GND	—	Ground terminal (for D/A converter 2) (analog system)
46	ADRIN	I	A/D converter (R-ch side) analog input terminal Tuner and bus audio input signal (R-ch side) in this set
47	ADRREF	O	Connected to the bus control for A/D converter (for R-ch side)
48	ADRGND	—	Ground terminal (for R-ch side A/D converter) (analog system)
49	ADRVDD	—	Power supply terminal (+3.3 V) (for R-ch side A/D converter) (analog system)
50	DA3GND	—	Ground terminal (for D/A converter 3) (analog system)
51	DA3VDD	—	Power supply terminal (+3.3 V) (for D/A converter 3) (analog system)
52	DA3LO	O	D/A converter 3 (L-ch side) output terminal Analog signal output for rear side (R-ch side) output in this set
53	DA3GND	—	Power supply terminal (+3.3 V) (for D/A converter 3) (analog system)
54	DA3RO	O	D/A converter 3 (R-ch side) output terminal Analog signal output for front side (R-ch side) output in this set
55	DA3GND	—	Ground terminal (for D/A converter 3) (analog system)
56	DGND	—	Ground terminal (digital system)
57	SYSRST	I	System reset signal input from the master controller (IC502) “L”: reset
58	BFOT	O	Master clock signal output terminal
59	SCK	I	Serial data transfer clock signal input from the master controller (IC502) and liquid crystal display drive controller (IC701)
60	REDY	O	Transfer enable signal output to the master controller (IC502) “L”: transfer prohibition
61	TRDT	O	Serial data output to the master controller (IC502) and liquid crystal display drive controller (IC701)
62	XLAT	I	Serial data latch pulse input from the master controller (IC502)
63	RVDT	I	Serial data input from the master controller (IC502)
64	24/23BIT	I	Serial data 24/32 bit slot selection signal input terminal “L”: 24 bit slot, “H”: 32 bit slot (validity at slave mode) (fixed at “L” in this set)
65	DVDD	—	Power supply terminal (+3.3 V) (digital system)
66	DVSS	—	Ground terminal (digital system)
67 – 69	SO1 – SO3	O	Serial data output terminal (Not used.)
70	SOUT	O	Serial data output terminal (Not used.)
71	SI1	I	Serial data input terminal
72, 73	SI2, SI3	I	Serial data input terminal Not used (fixed at “L”)
74	SIN	I	Serial data input terminal Not used (fixed at “L”)
75	BCK	I	Bit clock signal (2.8224 MHz) input terminal
76	LRCK	I	L/R sampling clock signal (44.1 kHz) input terminal
77	MST/SLV	I	Bit clock (BCK) and L/R sampling clock (LRCK) signal master/slave mode selection signal input from the master controller (IC502) “L”: master mode, “H”: slave mode
78	DVDD	—	Power supply terminal (+3.3 V) (digital system)
79	PLLGND	—	Ground terminal (PLL system)
80	PLLENA	I	PLL enable signal input terminal Normally: fixed at “L”
81	22 MHz	O	PLL clock signal output terminal (22.5792 MHz) (Not used.)
82	PLLCNT	I	PLL clock output control signal input from the master controller (IC502) At “L” is input: fixed at “L” is PLCLK (pin ⑧①) At “H” is input: PLL clock signal output from the PLCLK (pin ⑧①)
83	PLLVDD	—	Power supply terminal (+3.3 V) (PLL system)
84	DGND	—	Ground terminal (digital system)
85 – 94	T.P	I	Input terminal for the test Normally: fixed at “L”
95	DVDD	—	Power supply terminal (+3.3 V) (digital system)
96	DRAMGND	—	Ground terminal (for D-RAM)
97 – 99	T.P	I	Input terminal for the test Normally: fixed at “L”
100	DRAMVDD	—	Power supply terminal (+3.3 V) (for D-RAM)

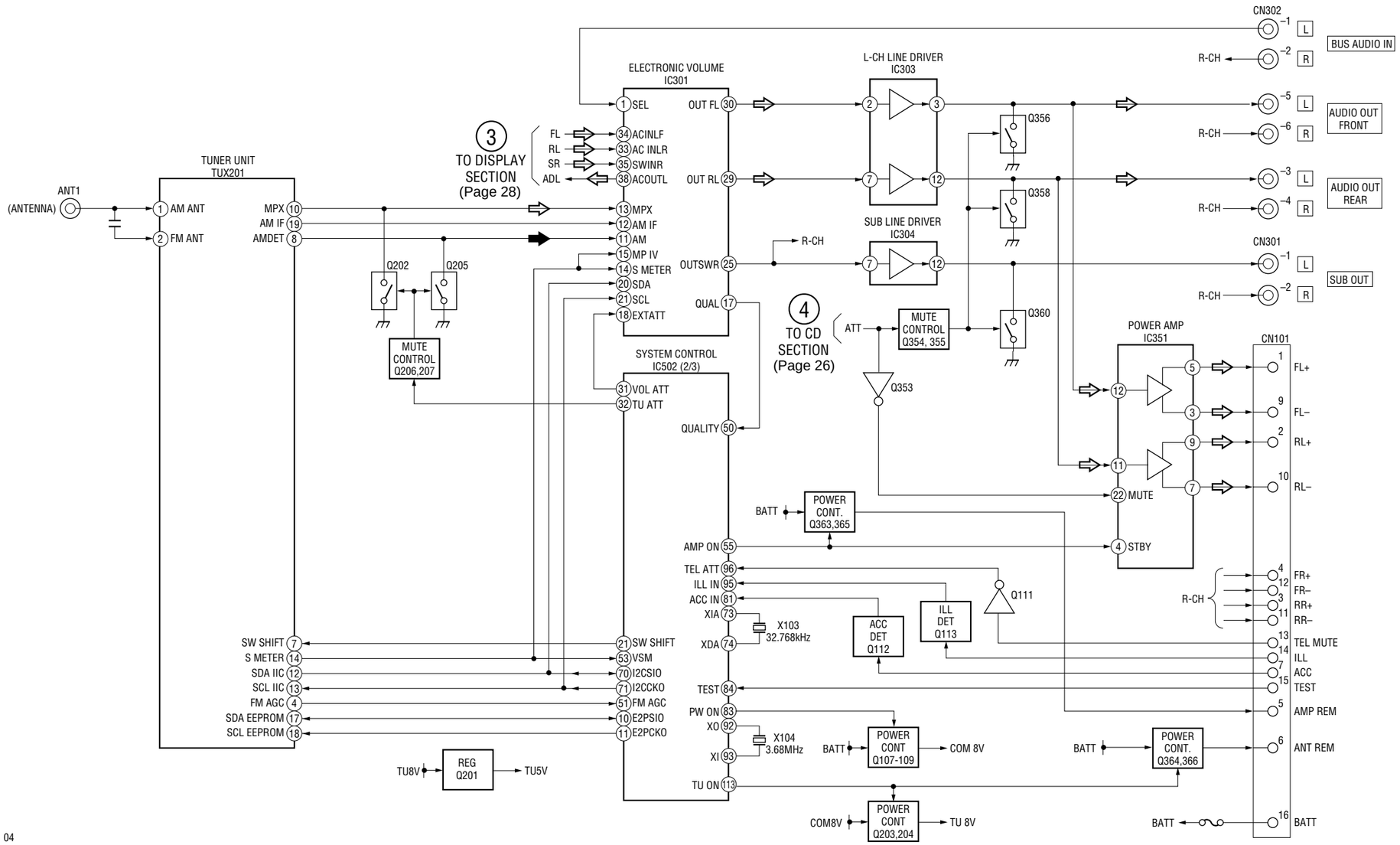
25

3-2. BLOCK DIAGRAM — CD SECTION —



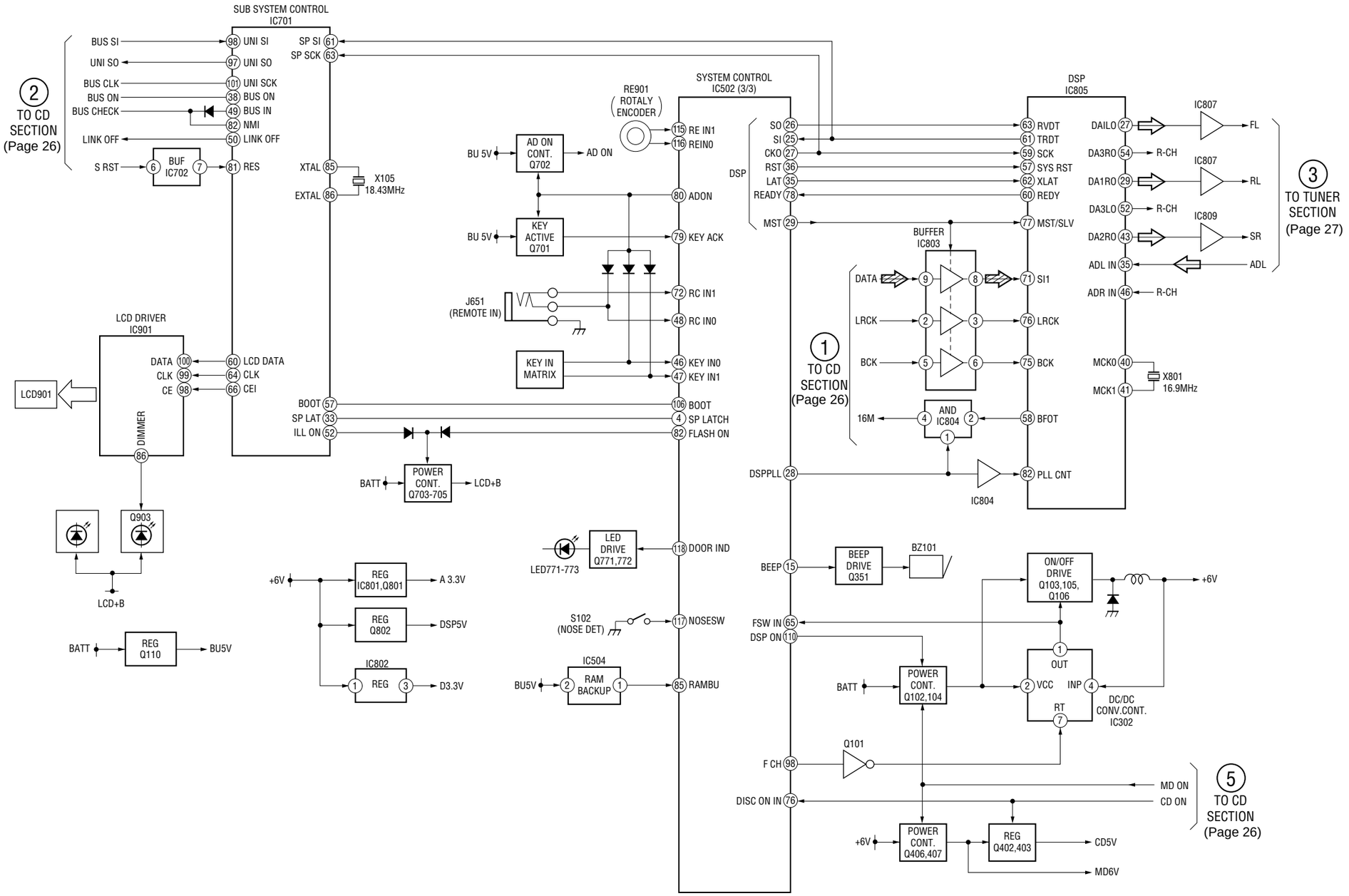
04

3-3. BLOCK DIAGRAM — TUNER SECTION —



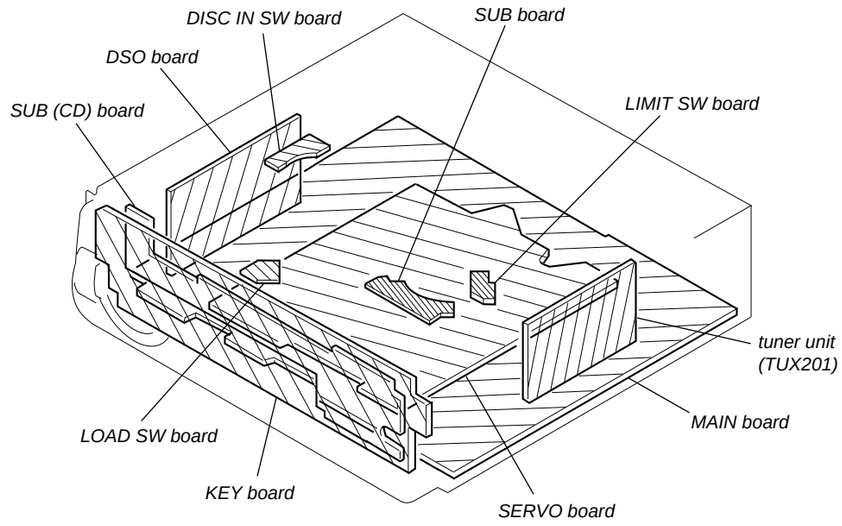
04

3-4. BLOCK DIAGRAM — DISPLAY SECTION —



04

3-5. CIRCUIT BOARDS LOCATION



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : AM
  - ⇨ : CD

for printed wiring boards:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side (Side B): Parts on the pattern face side seen from the pattern face are indicated.
Parts face side (Side A): Parts on the parts face side seen from the parts face are indicated.

• Waveforms (MODE:PLAY)

① 0V
Approx. 200mVp-p
IC1 ⑬ (TE)

② 0V
Approx. 620mVp-p
IC1 ⑭ (FE)

③ 1.2Vp-p
IC1 ⑯ (RFO)

④ 5Vp-p
22.7µsec
IC501 ⑦⑦ (LRCK)

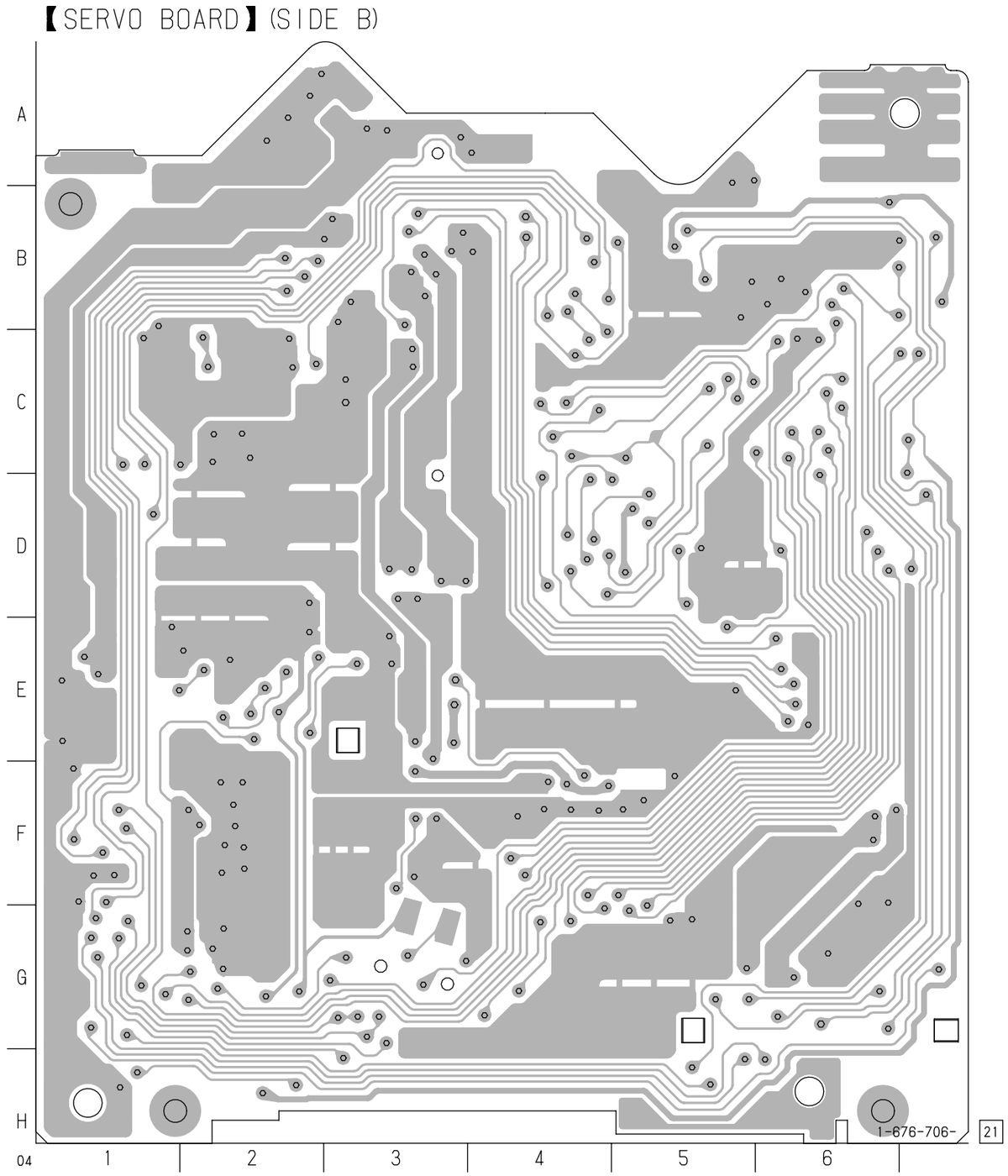
⑤ 5Vp-p
474nsec
IC501 ⑦⑨ (PCMO)

⑥ 5.7Vp-p
474nsec
IC501 ⑧① (BCK)

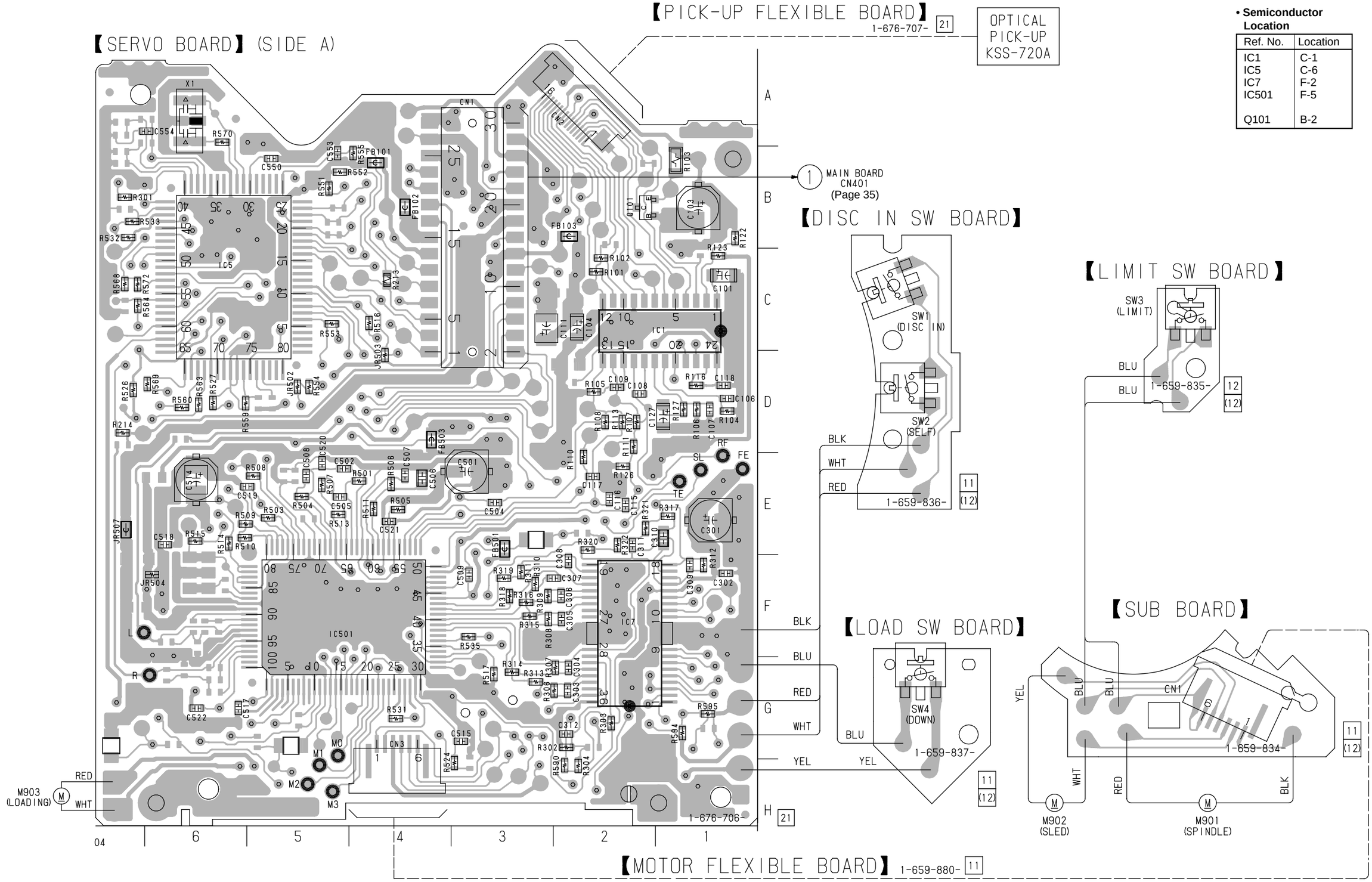
⑦ 3.8Vp-p
16.89MHz
IC501 ⑧⑥ (XTAI)

⑧ 2Vp-p
10MHz
IC5 ③① (X IN)

3-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION —



30



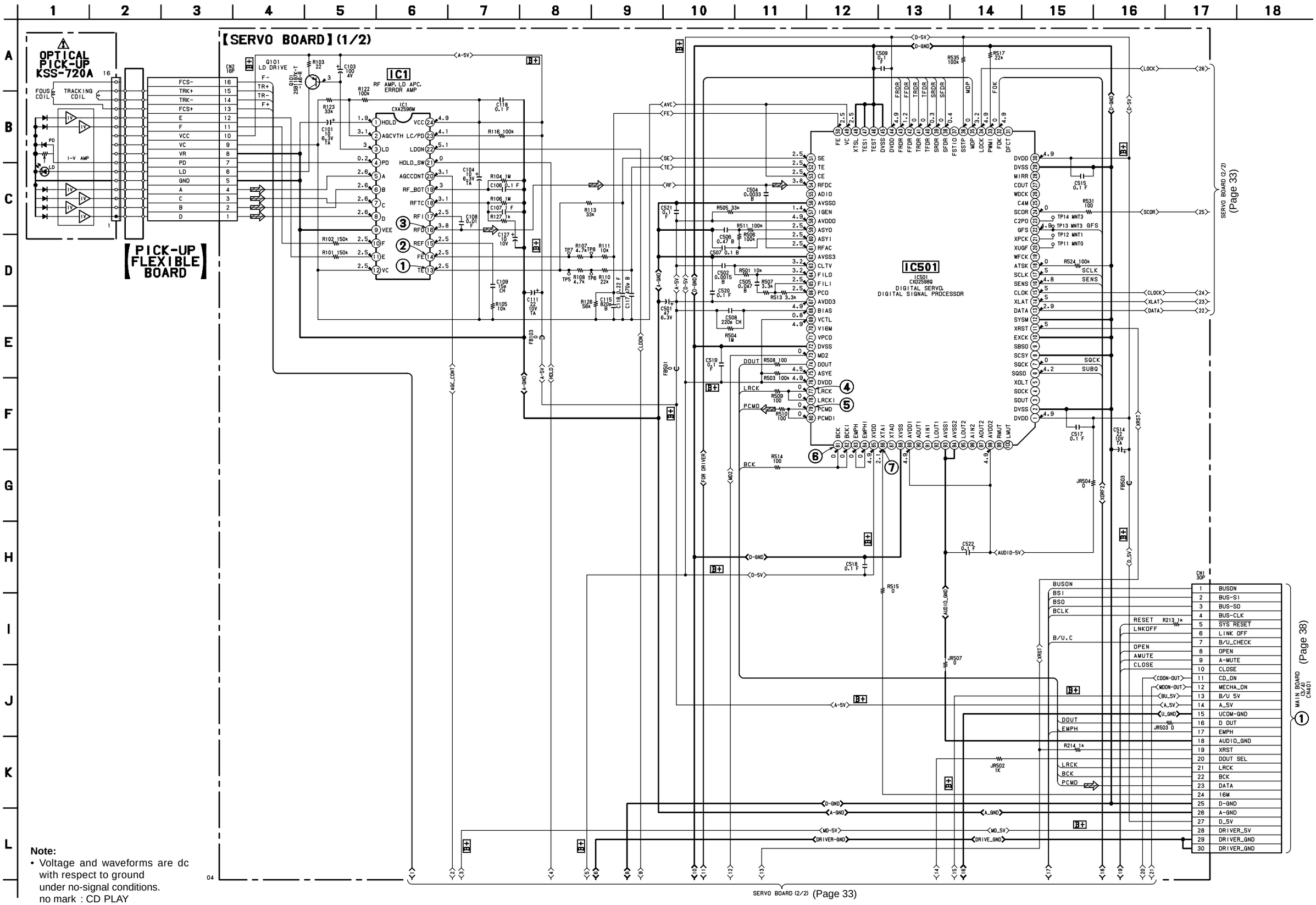
- **Semiconductor Location**

Ref. No.	Location
IC1	C-1
IC5	C-6
IC7	F-2
IC501	F-5
Q101	B-2

• Refer to page 29 for Waveforms.

3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 46 for IC Block Diagrams.



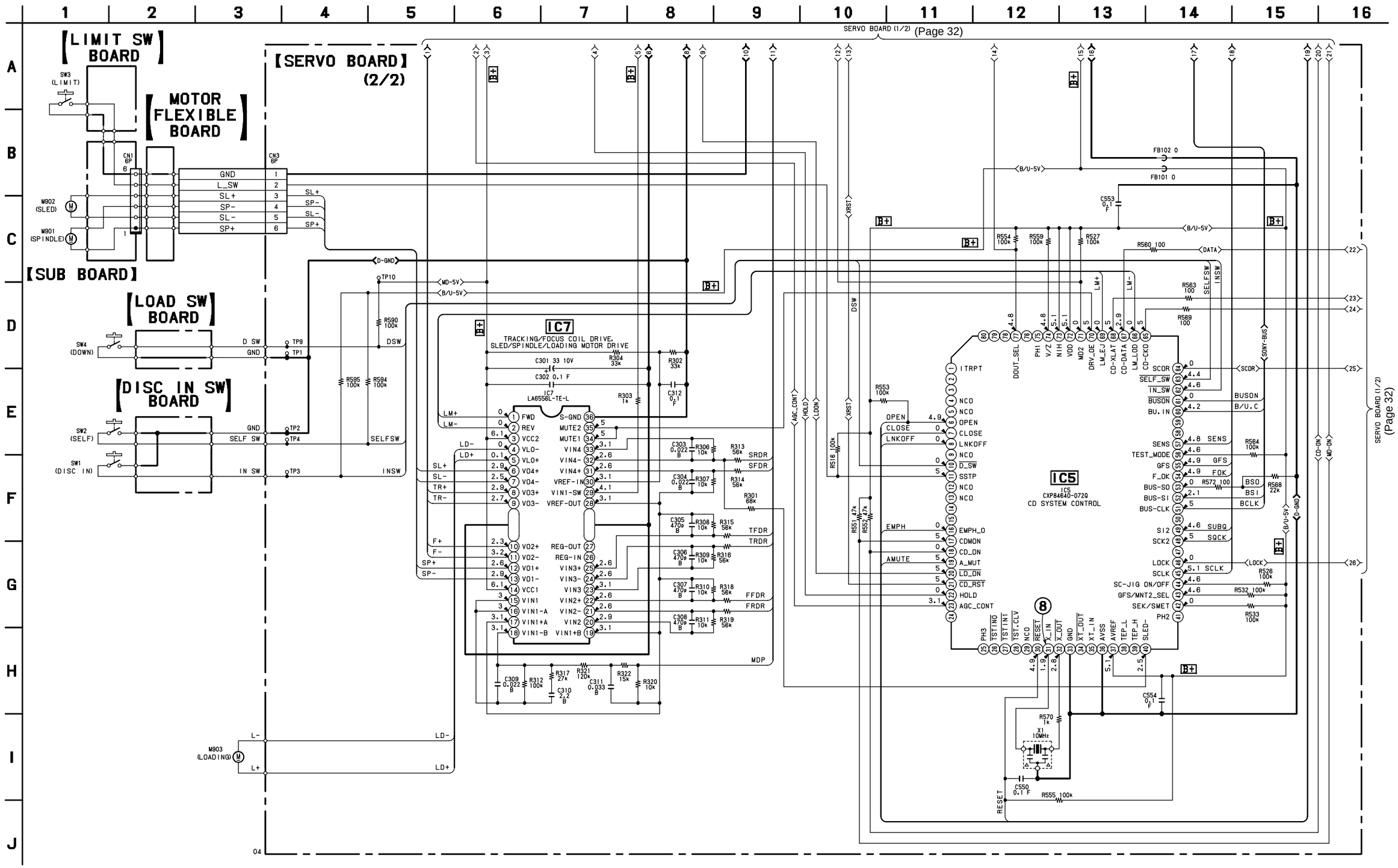
Note:

- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

• Refer to page 29 for Waveforms.

3-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

• Refer to page 46 for IC Block Diagrams.



Note:

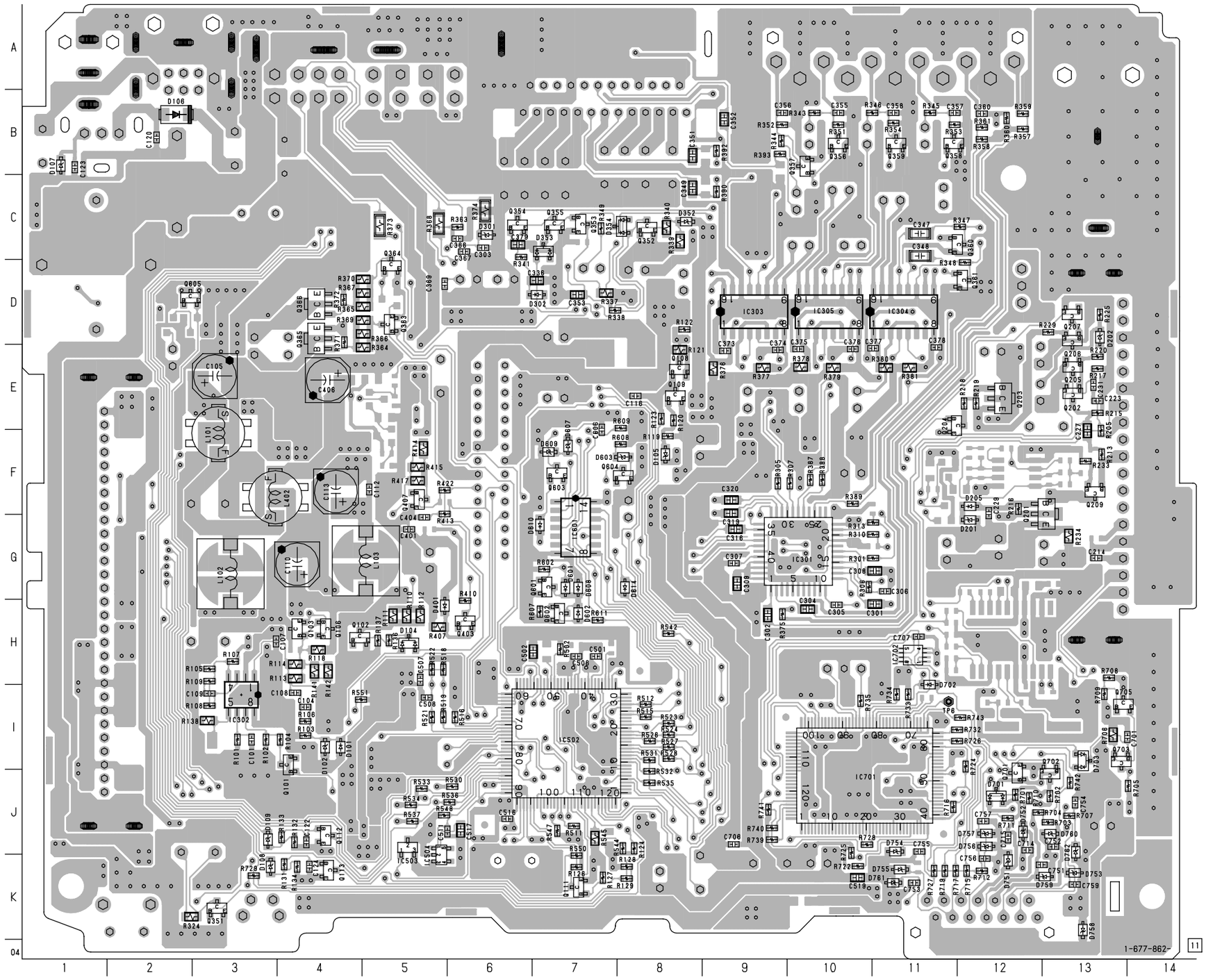
- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

3-9. PRINTED WIRING BOARD — MAIN SECTION —

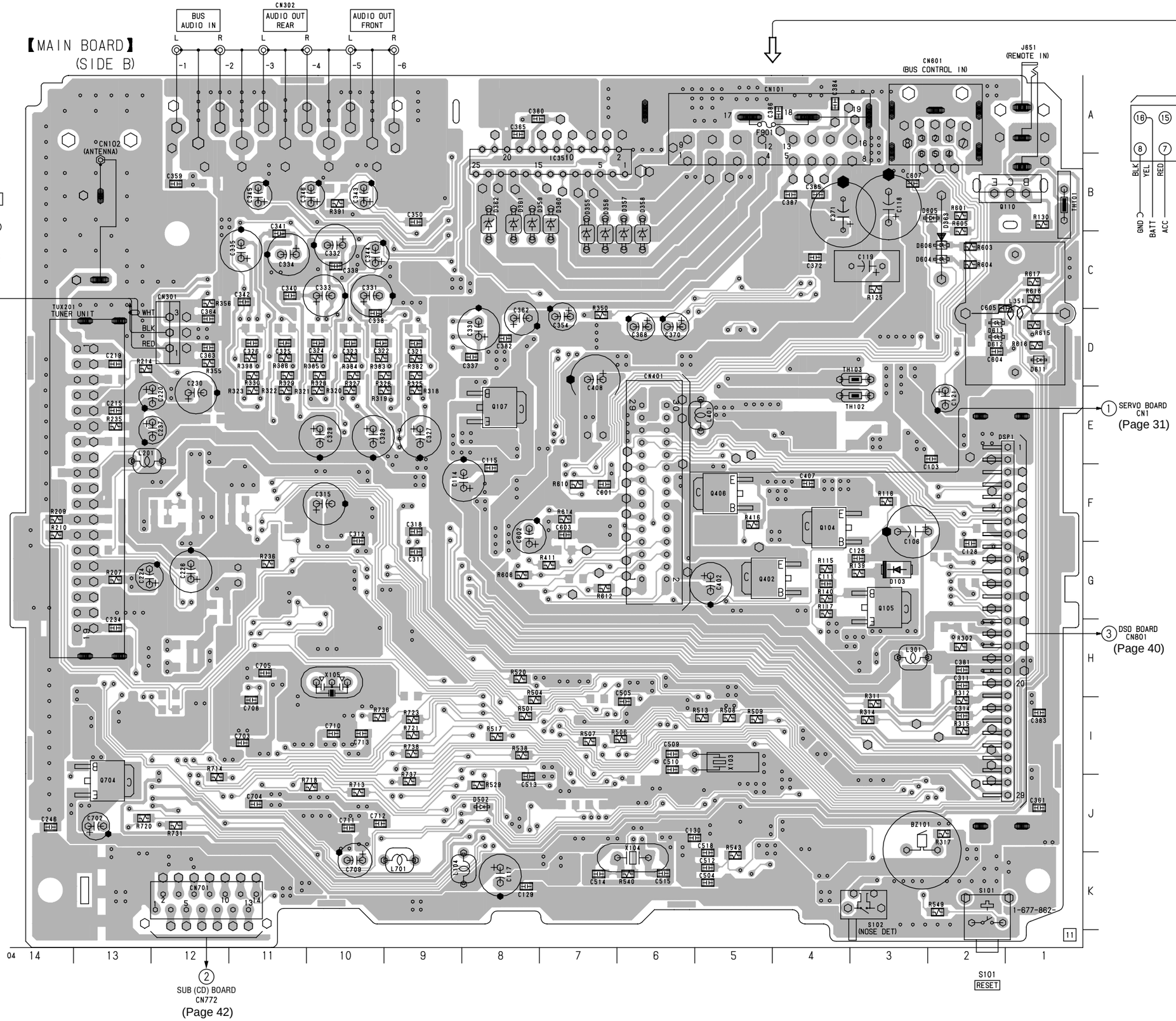
• Semiconductor Location (Side A)

Ref. No.	Location	Ref. No.	Location
D101	I-4	IC504	K-5
D102	I-4	IC601	G-7
D104	H-5	IC701	J-10
D105	F-8	IC702	H-11
D106	B-2		
D107	B-1	Q101	I-4
D108	K-3	Q102	H-4
D109	J-3	Q103	H-4
D201	D-12	Q106	H-4
D202	D-13	Q108	E-8
D205	F-11	Q109	E-8
D301	C-6	Q111	K-7
D302	D-7	Q112	J-4
D352	C-8	Q113	K-4
D353	C-7	Q201	F-12
D354	C-8	Q202	E-13
D401	H-5	Q203	E-13
D501	H-7	Q204	E-11
D601	G-7	Q205	E-13
D602	H-7	Q206	E-13
D603	F-8	Q207	D-13
D607	F-7	Q209	F-13
D608	G-7	Q351	K-3
D609	F-7	Q352	C-8
D610	G-7	Q353	C-7
D614	G-8	Q354	C-6
D701	J-12	Q355	C-7
D702	H-11	Q356	B-10
D703	I-13	Q357	B-10
D751	K-12	Q358	B-11
D752	J-12	Q359	B-11
D753	K-13	Q360	C-12
D754	K-11	Q361	D-12
D755	K-11	Q363	D-5
D756	J-12	Q364	D-5
D757	J-12	Q365	D-4
D758	K-13	Q366	D-4
D759	K-13	Q403	H-6
D760	J-13	Q407	F-5
D761	K-11	Q601	G-7
D762	K-13	Q602	H-7
		Q603	F-7
IC301	G-10	Q604	F-8
IC302	I-3	Q605	D-3
IC303	D-9	Q701	J-12
IC304	D-11	Q702	I-13
IC305	D-10	Q703	I-13
IC502	I-7	Q705	I-13
IC503	J-5		

【MAIN BOARD】(SIDE A)



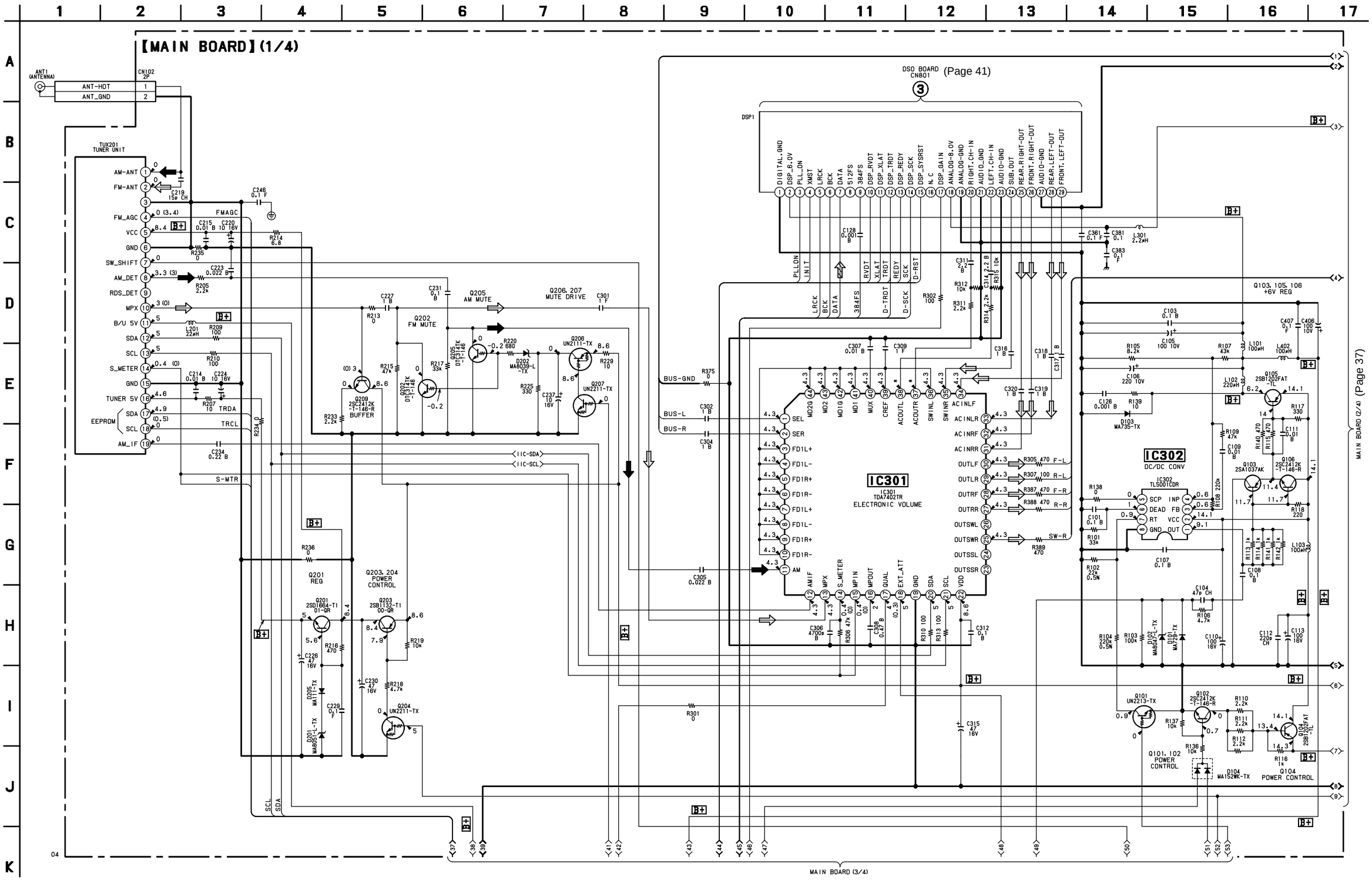
【MAIN BOARD】
(SIDE B)



• Semiconductor Location (Side B)

Ref. No.	Location
D103	G-3
D355	B-7
D356	B-7
D357	B-7
D358	B-6
D359	B-8
D360	B-7
D361	B-8
D362	B-8
D363	B-2
D604	C-2
D605	B-3
D606	C-2
D611	D-11
D612	D-2
D613	D-2
IC351	B-7
Q104	F-4
Q105	G-3
Q107	E-8
Q110	B-2
Q402	G-5
Q406	F-5
Q704	I-13

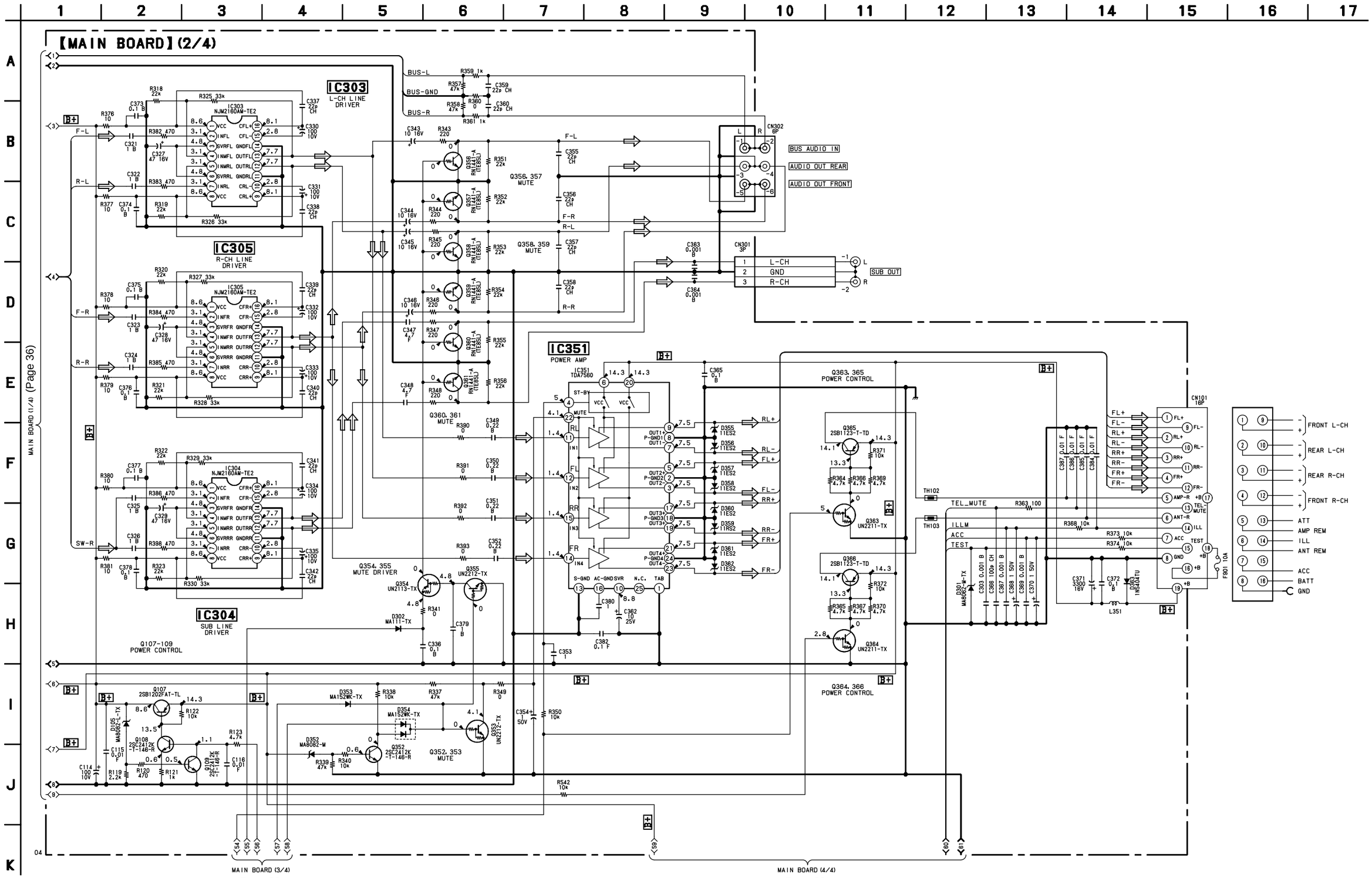
3-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 46 for IC Block Diagrams.



Note:

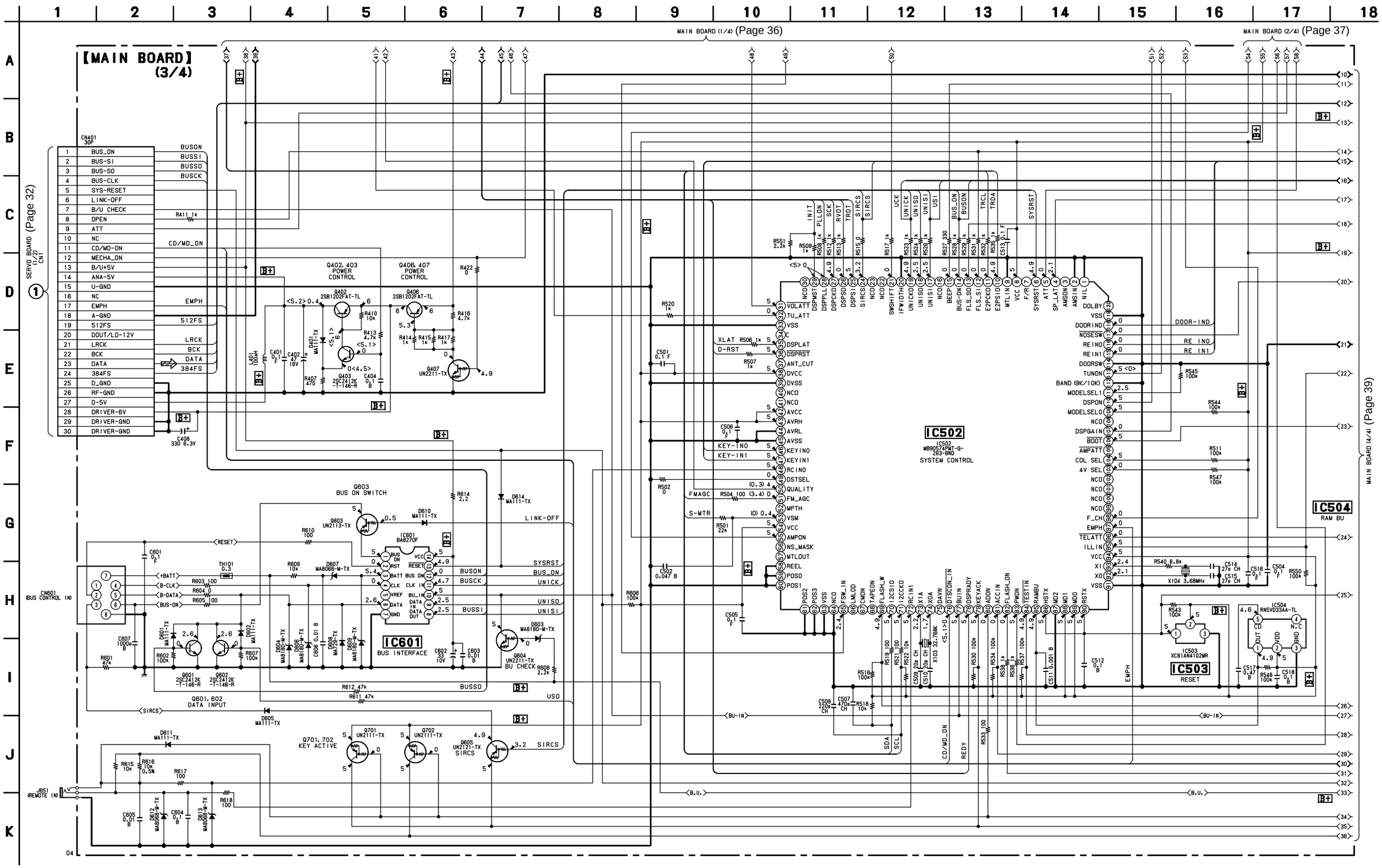
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM

3-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —



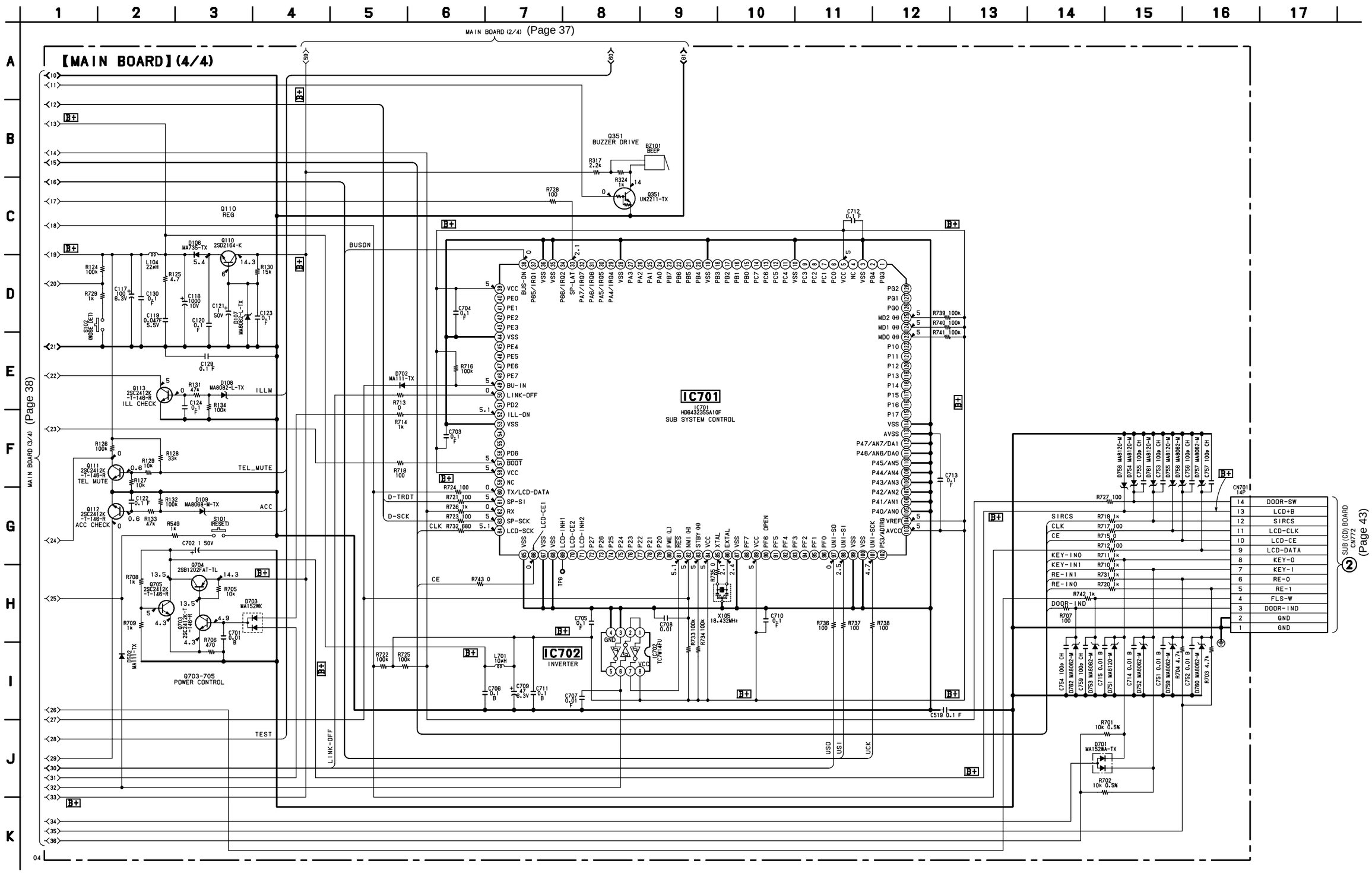
Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

3-12. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 46 for IC Block Diagrams.



Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM
  < > : CD PLAY

3-13. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

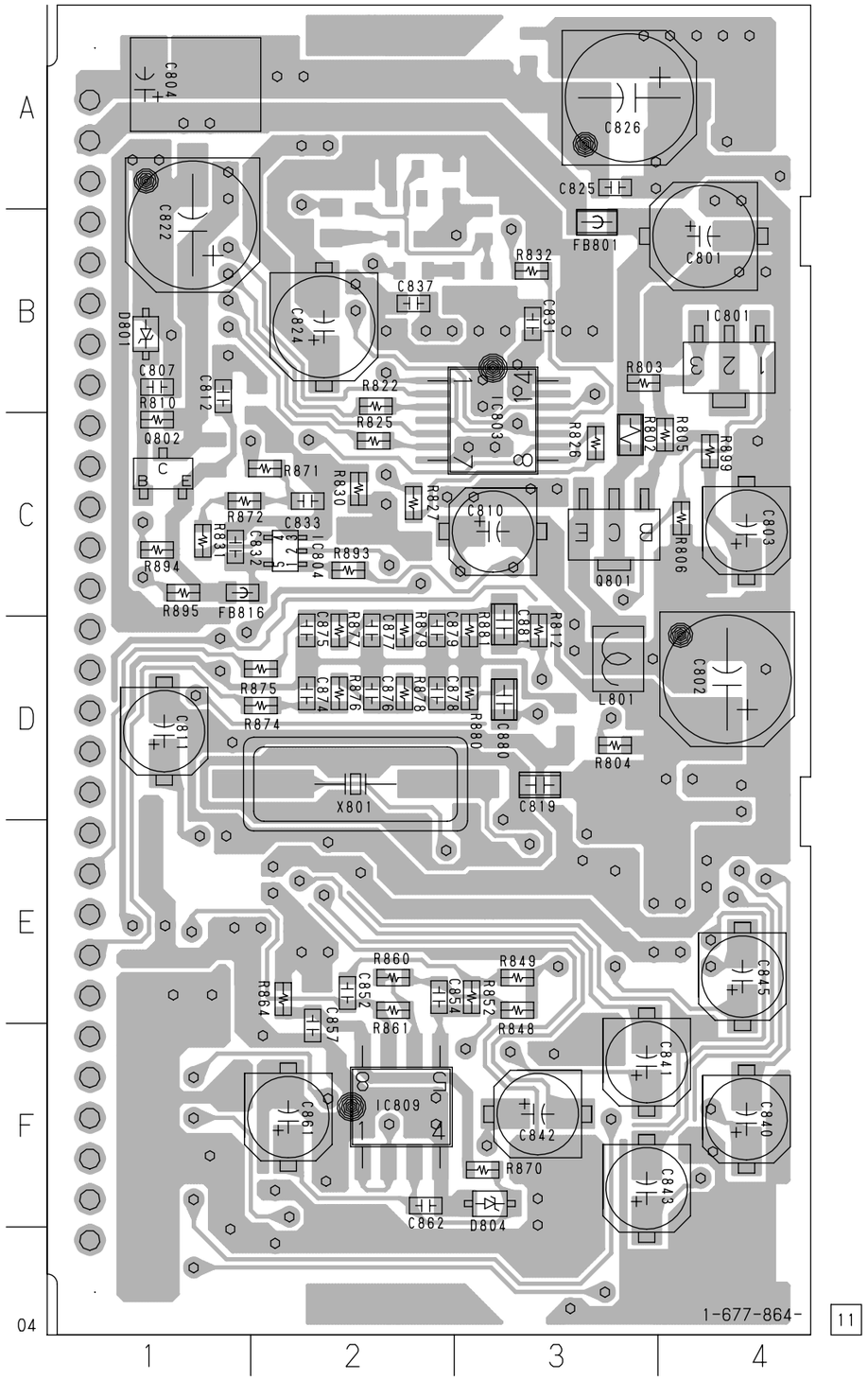
3-14. PRINTED WIRING BOARD — DSO SECTION —

- **Semiconductor Location**

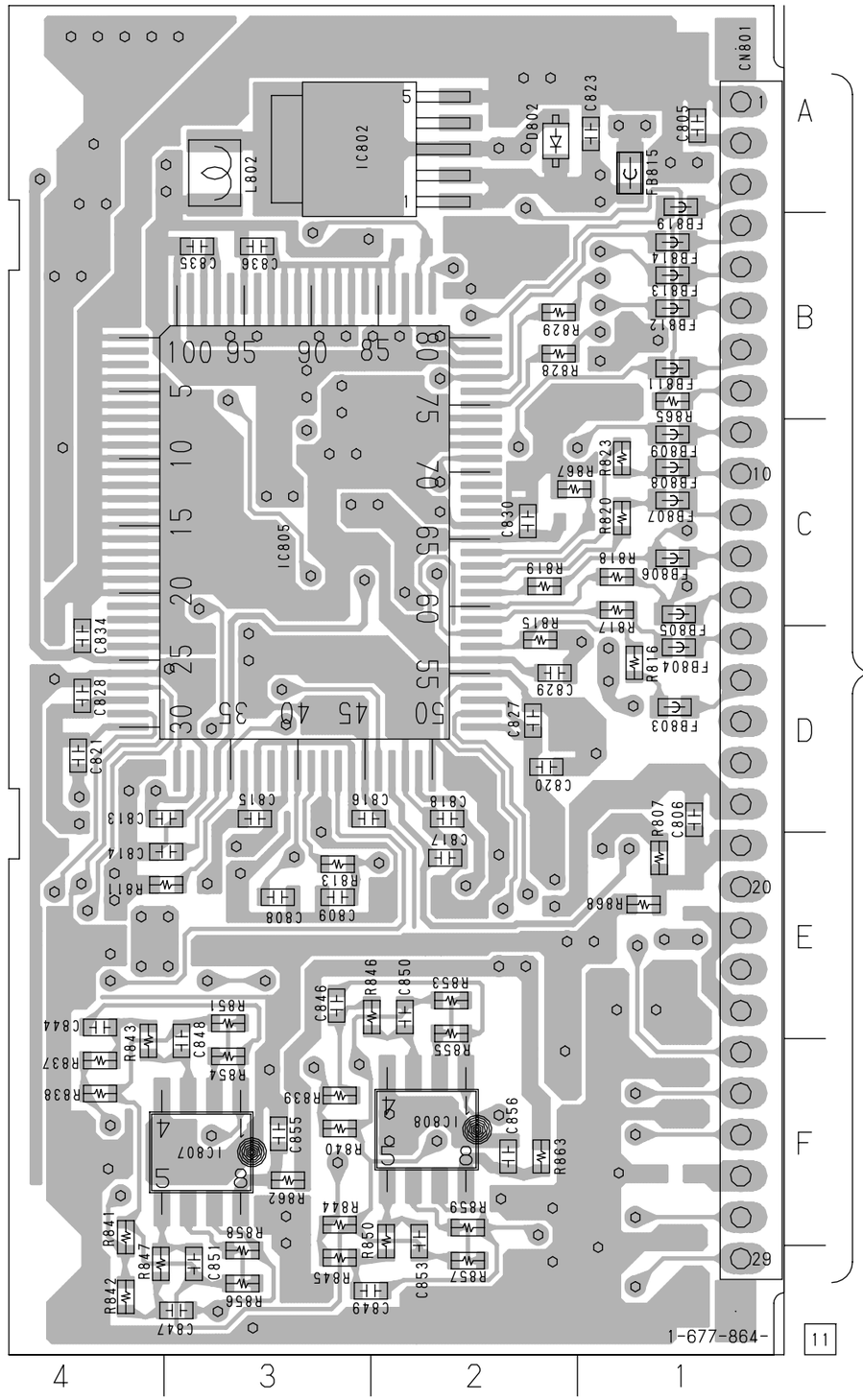
Ref. No.	Location
D801	B-1
(D802)	A-2
D804	F-3
IC801	B-4
(IC802)	A-2
IC803	B-3
IC804	C-2
(IC805)	C-3
(IC807)	F-3
(IC808)	F-2
IC809	F-2
Q801	C-3
Q802	C-1

( ): SIDE B

【DSO BOARD】(SIDE A)

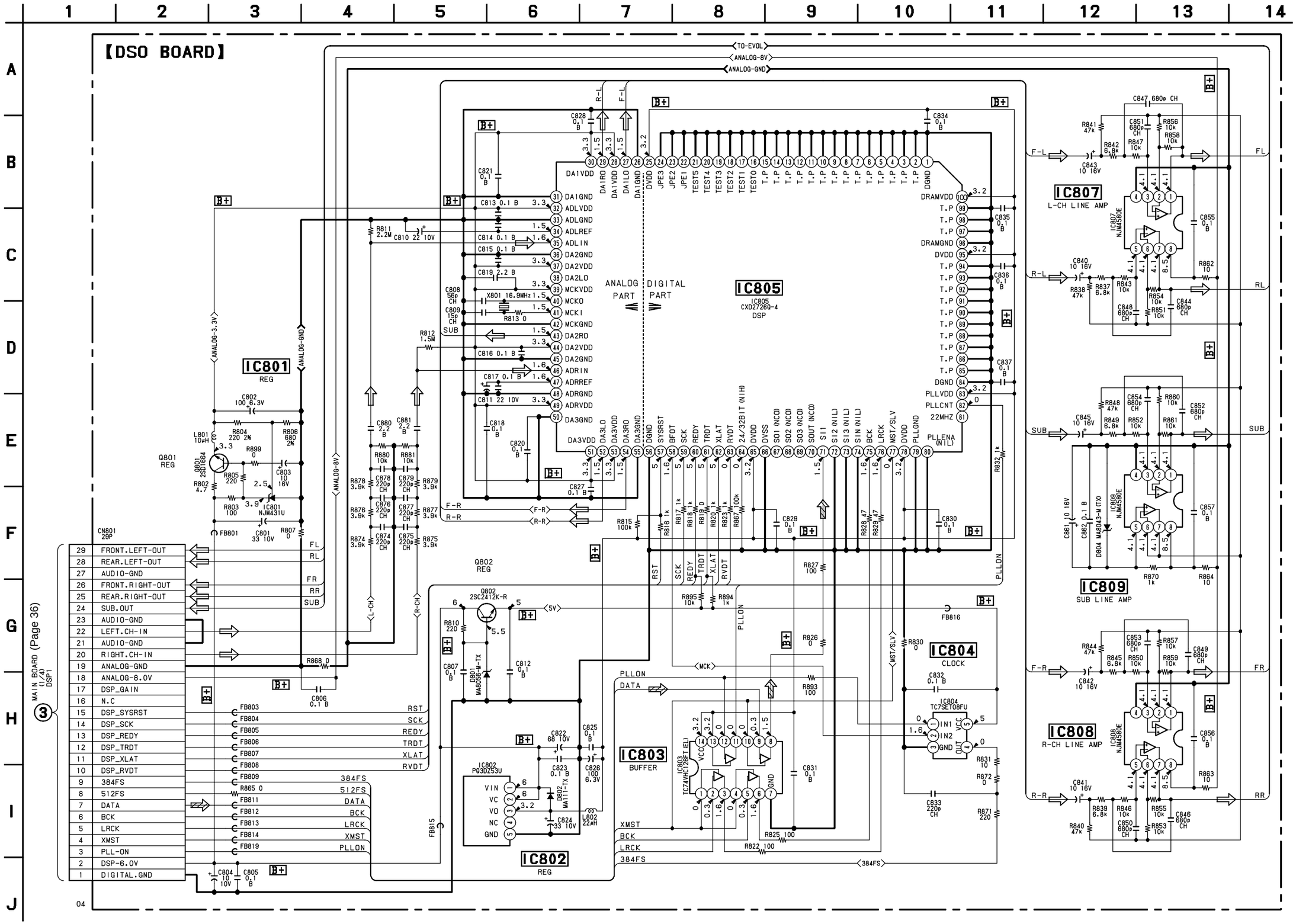


【DSO BOARD】(SIDE B)



③ MAIN BOARD DSP1 (Page 35)

3-15. SCHEMATIC DIAGRAM — DSO SECTION —

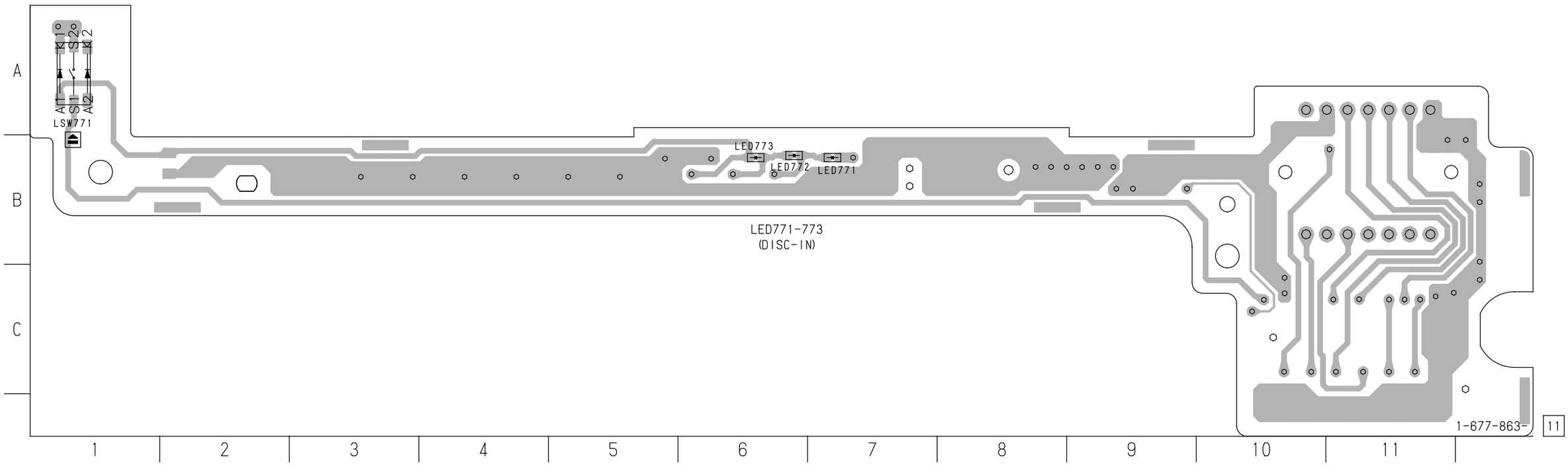


Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

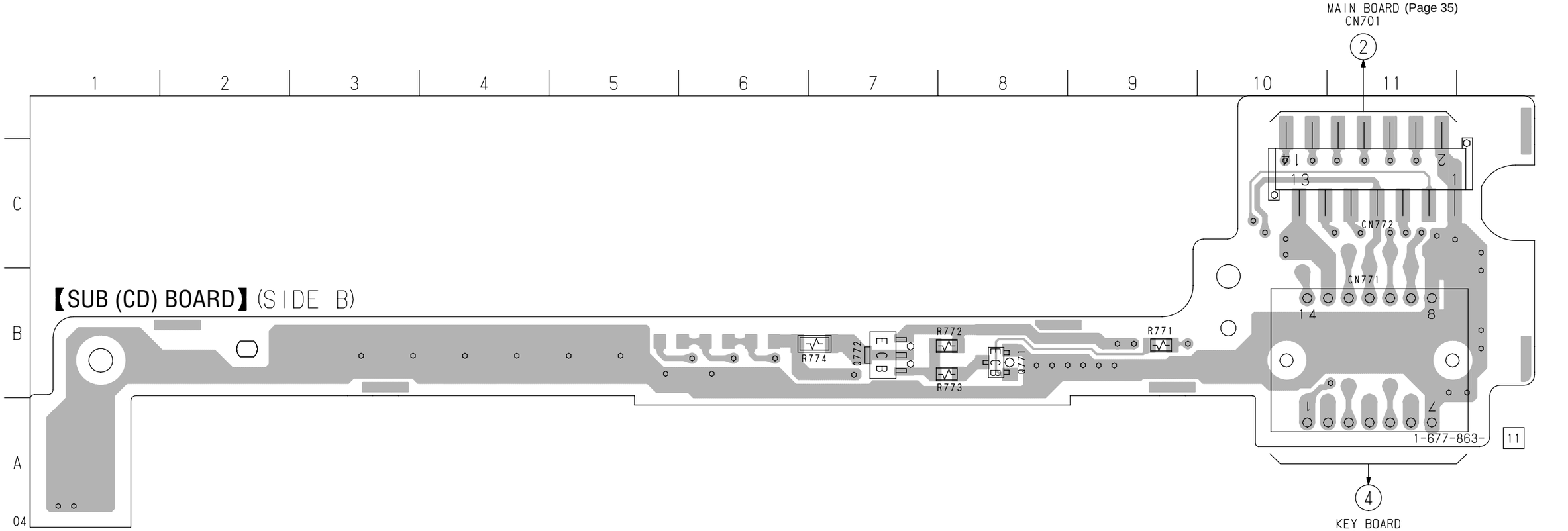
3-16. PRINTED WIRING BOARD — SUB (CD) SECTION —

【SUB (CD) BOARD】(SIDE A)

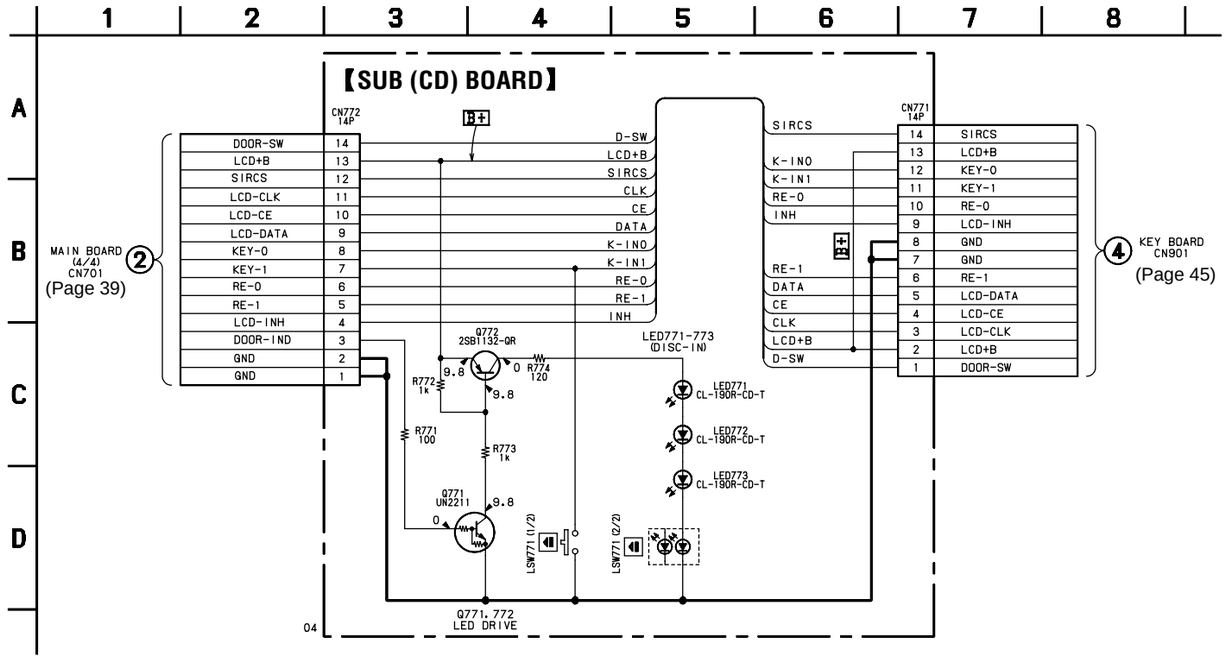


MAIN BOARD (Page 35)

【SUB (CD) BOARD】(SIDE B)



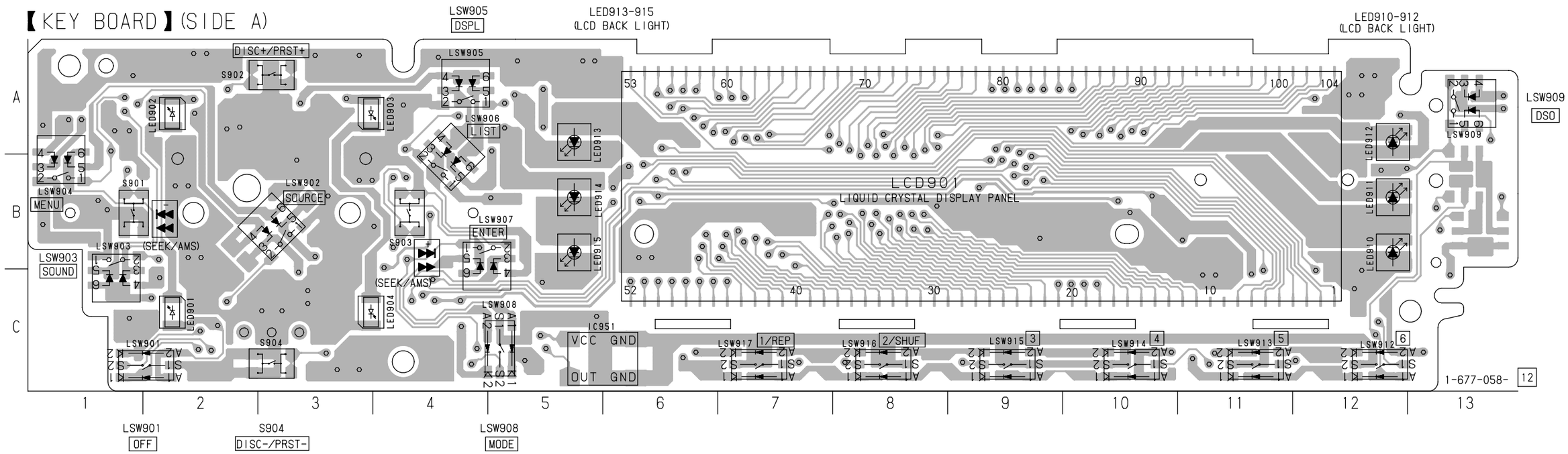
3-17. SCHEMATIC DIAGRAM — SUB (CD) SECTION —



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

3-18. PRINTED WIRING BOARD — KEY SECTION —

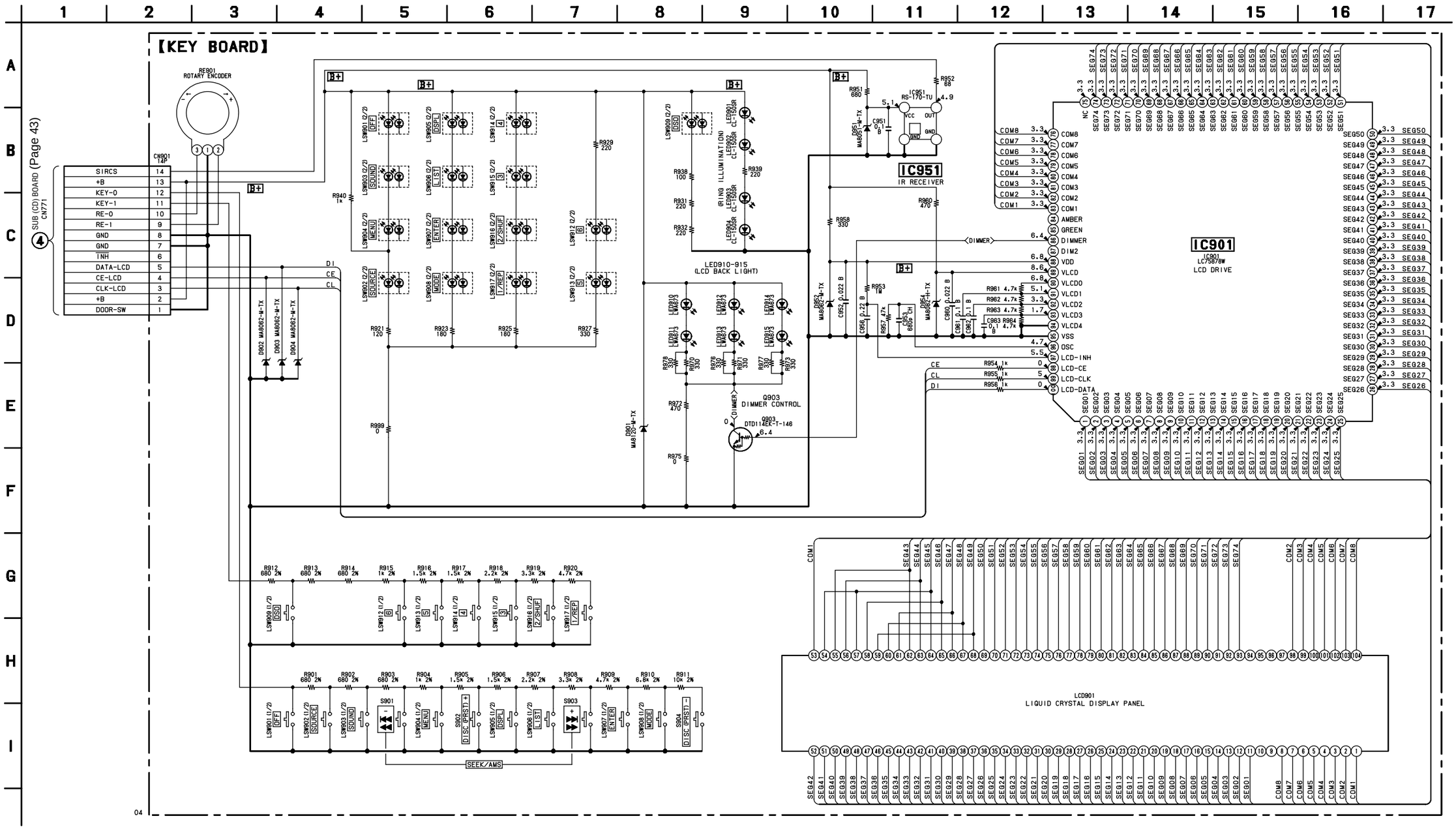


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
(D901)	B-13	LED902	A-2
(D902)	C-11	LED903	A-3
(D903)	C-11	LED904	C-3
(D904)	C-11	LED910	B-12
(D951)	C-5	LED911	B-12
(D952)	B-10	LED912	A-12
(D954)	B-10	LED913	A-5
		LED914	B-5
(IC901)	B-8	LED915	B-5
IC951	C-5		
		(Q903)	B-5
LED901	C-2		

( ) : SIDE B

3-19. SCHEMATIC DIAGRAM — KEY SECTION —

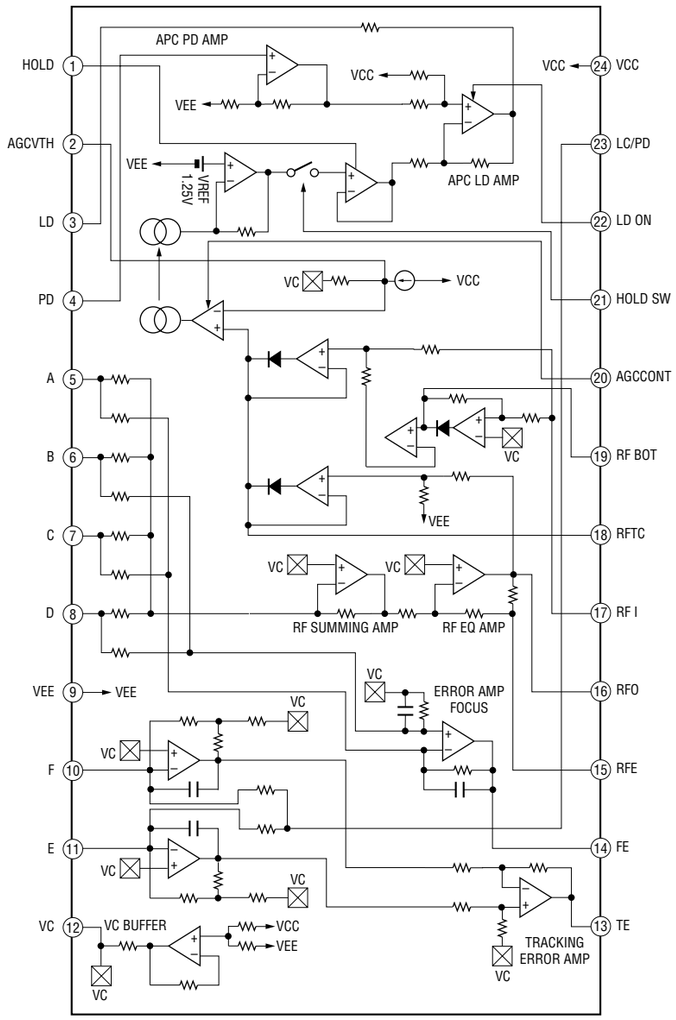


Note:

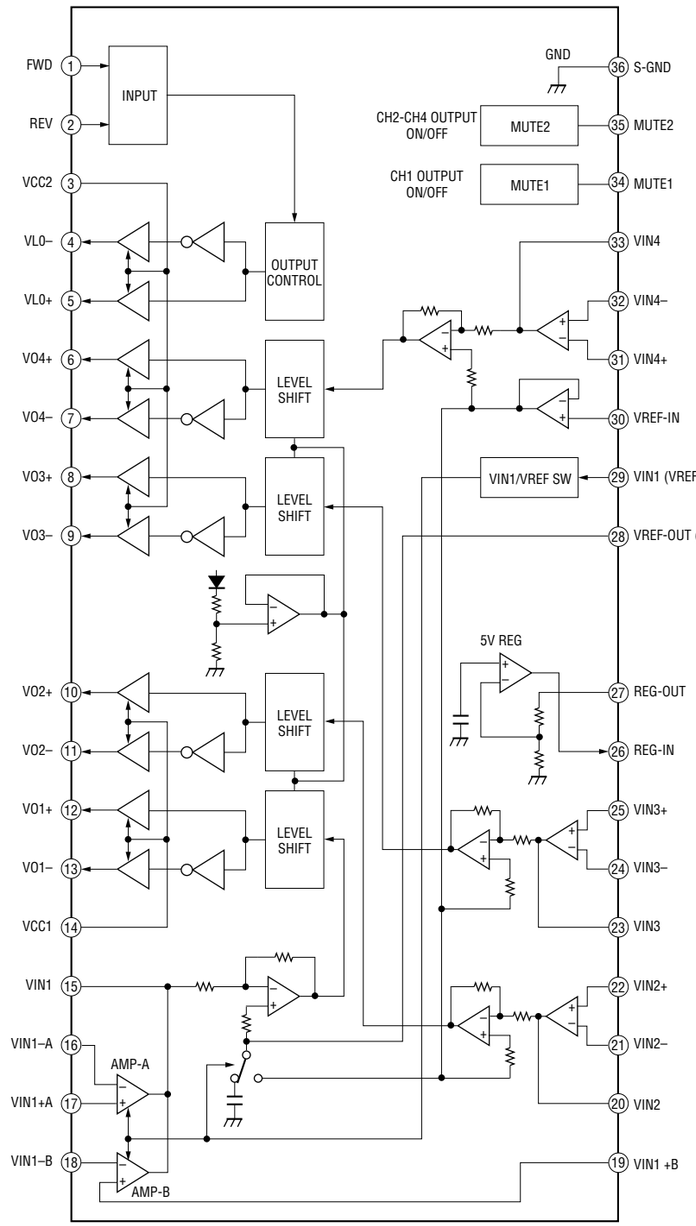
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

• IC Block Diagrams

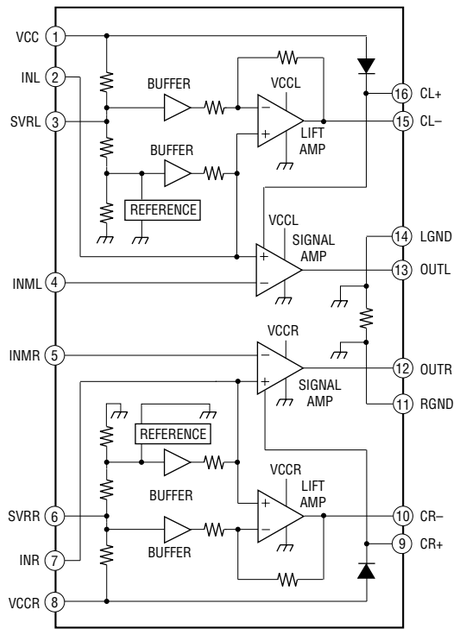
IC1 CXA2596M



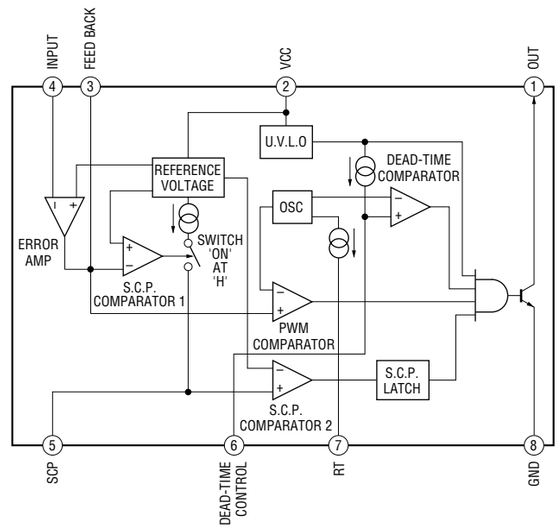
IC7 LA6556L-TE-L



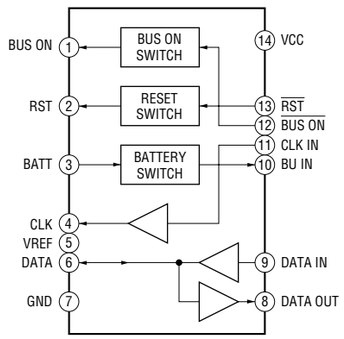
IC303, 304, 305 NJM2160AM-TE2



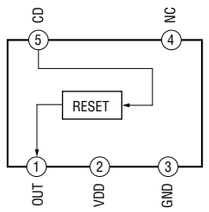
IC302 TL5001CDR



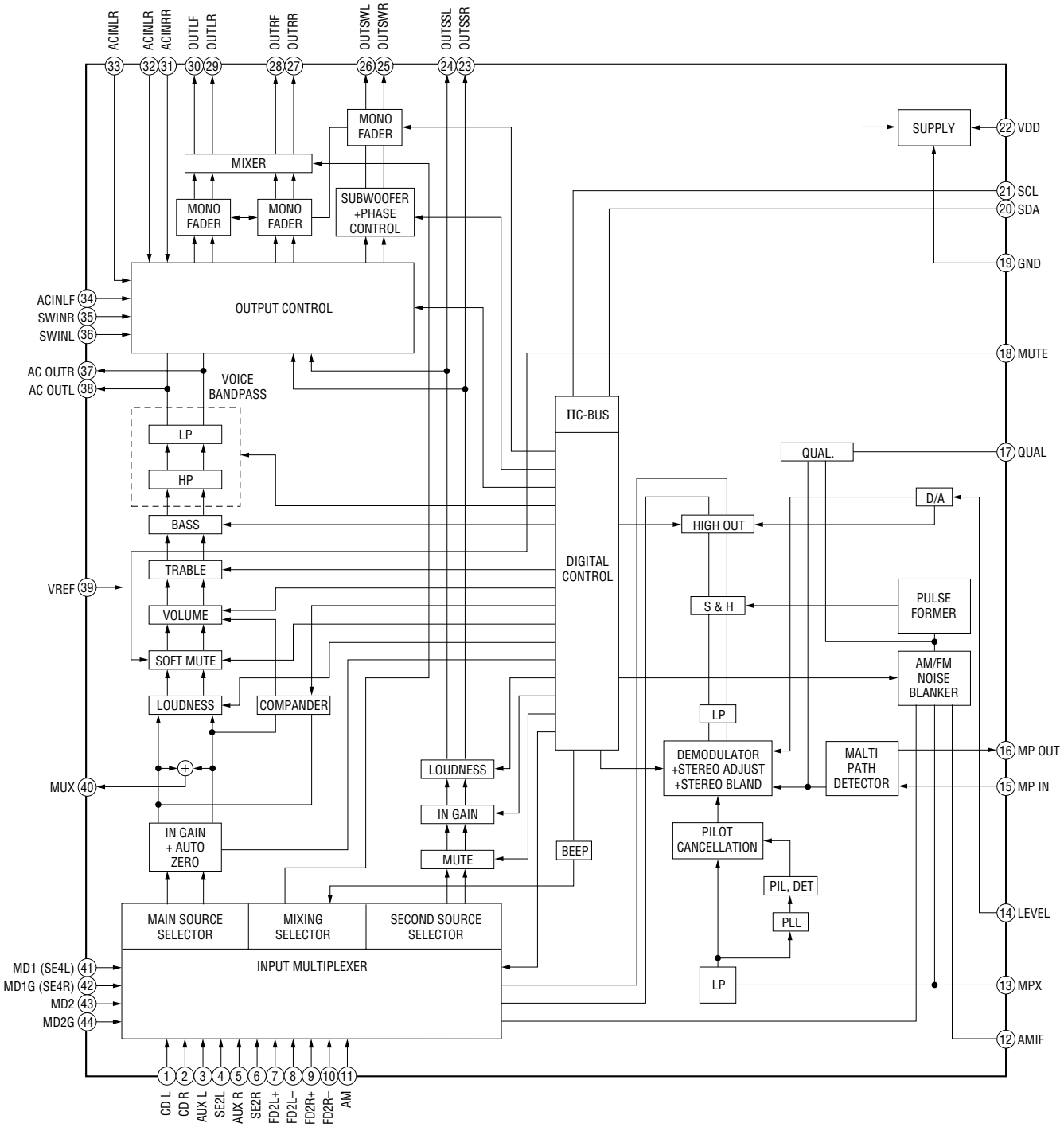
IC601 BA8270F



IC504 RN5VD33AA-TL



IC301 TDA7402TR

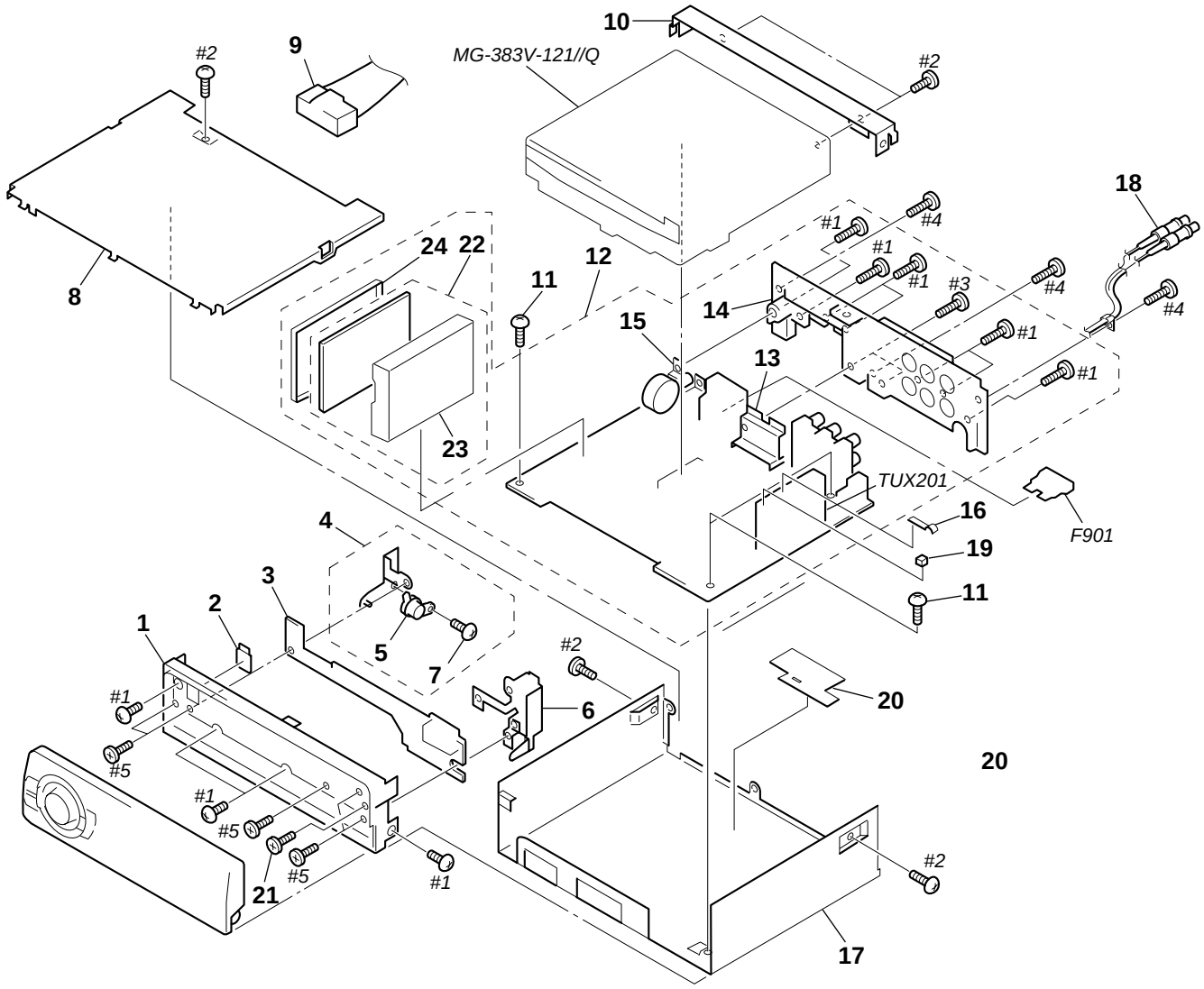


SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

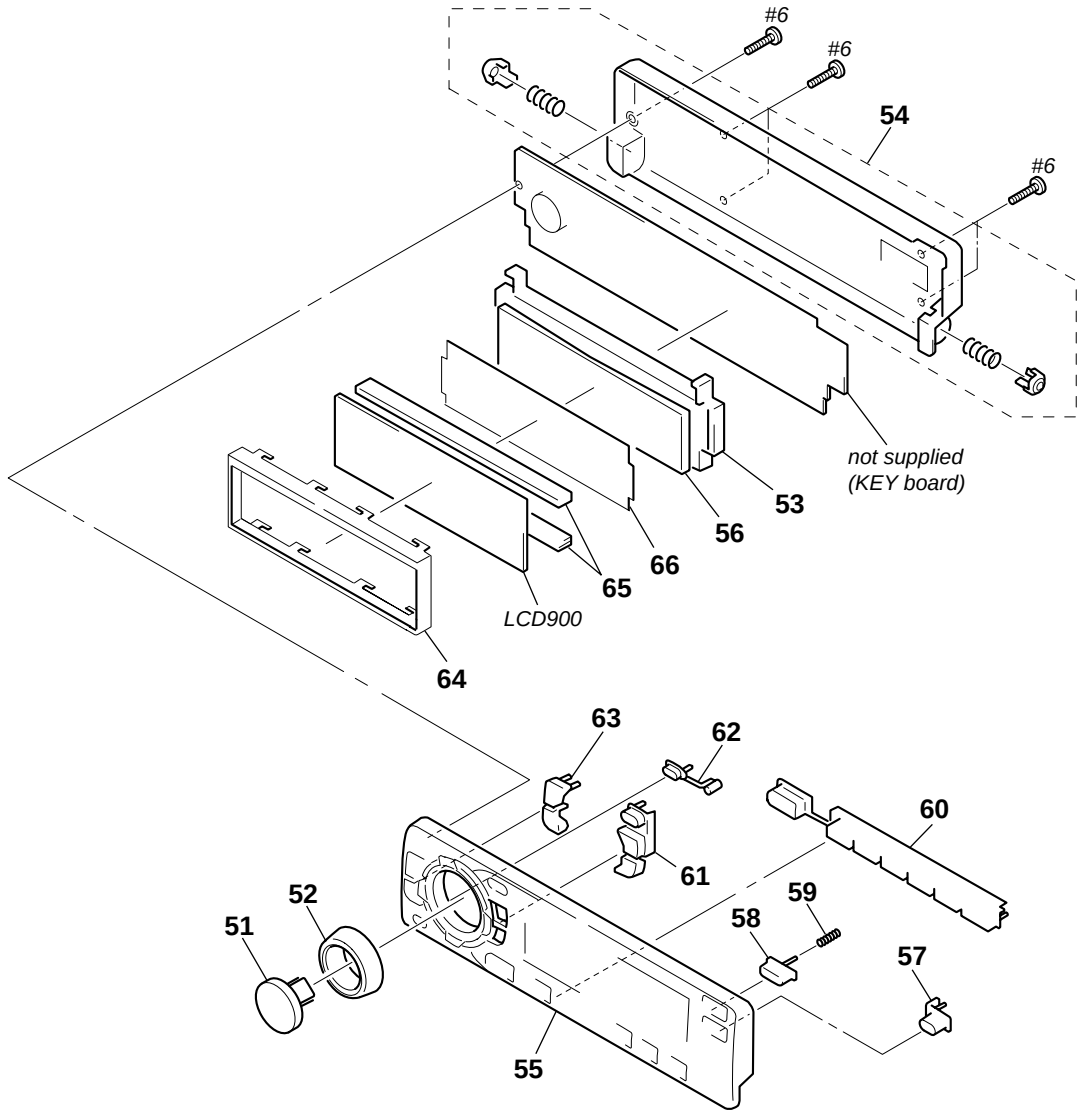
4-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	X-3378-512-2	PANEL ASSY, SUB	
2	3-040-990-01	BUTTON (EJECT)	
* 3	1-677-863-11	SUB (CD) BOARD	
4	X-3376-699-2	GEAR ASSY	
5	3-030-909-02	DAMPER, OIL	
6	X-3377-621-2	LOCK ASSY	
7	3-713-786-51	SCREW +P 2X3	
* 8	3-040-995-01	COVER	
9	1-792-194-11	CORD (WITH CONNECTOR) (POWER)	
* 10	3-041-012-01	BRACKET (CD)	
11	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
* 12	A-3294-903-A	MAIN BOARD, COMPLETE	
* 13	3-040-998-01	BRACKET (IC)	

Ref. No.	Part No.	Description	Remark
* 14	3-040-996-32	HEAT SINK (6P)	
* 15	3-041-261-01	BRACKET (TR)	
16	3-045-878-01	PLATE (TU), GROUND	
* 17	3-040-994-11	CHASSIS	
18	1-792-602-11	CORD (WITH CONNECTOR) (SUB OUT)	
19	3-045-877-01	CUSHION (TU)	
20	3-047-865-01	SHEET (MAIN), INSULATING	
21	3-035-250-02	SCREW (LOCK)	
* 22	A-3294-909-A	DSO BOARD, COMPLETE	
* 23	3-045-138-01	CASE (DSP), SHIELD	
* 24	3-045-994-01	COVER (DSP), SHIELD	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX201	A-3220-738-A	TUNER UNIT (TUX-020)	

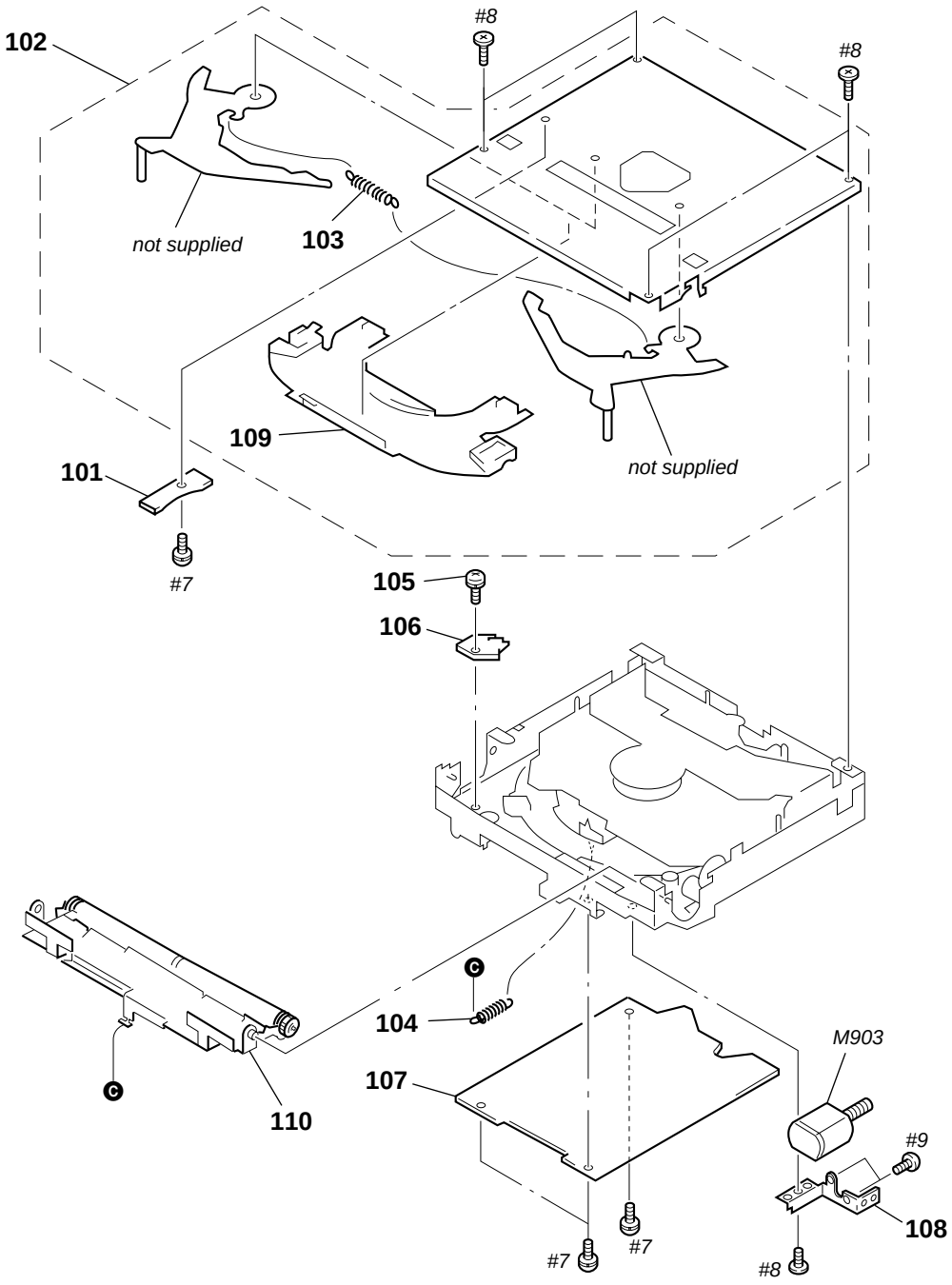
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-040-980-01	BUTTON (SOURCE)	
52	3-042-458-01	KNOB (VOL-DSO)	
* 53	3-040-992-02	HOLDER (LCD)	
54	X-3378-398-1	PANEL ASSY, FRONT BACK	
55	X-3379-018-1	PANEL SUB ASSY	
* 56	3-040-993-01	PLATE (LCD), LIGHT GUIDE	
57	3-041-005-01	BUTTON (D)	
58	3-040-989-01	BUTTON (OPEN)	
59	3-037-267-01	SPRING (OPEN)	

Ref. No.	Part No.	Description	Remark
60	3-041-010-01	BUTTON (1-6/M)	
61	3-041-003-01	BUTTON (LIST/ENTER)	
62	3-040-987-02	BUTTON (OFF)	
63	3-040-986-01	BUTTON (MENU/SOUND)	
* 64	3-040-997-01	PLATE (LCD), GROUND	
65	1-694-660-11	CONDUCTIVE BOARD, CONNECTION	
* 66	3-041-371-02	SHEET (REFLECTOR)	
LCD900	1-803-915-21	DISPLAY PANEL, LIQUID CRYSTAL	

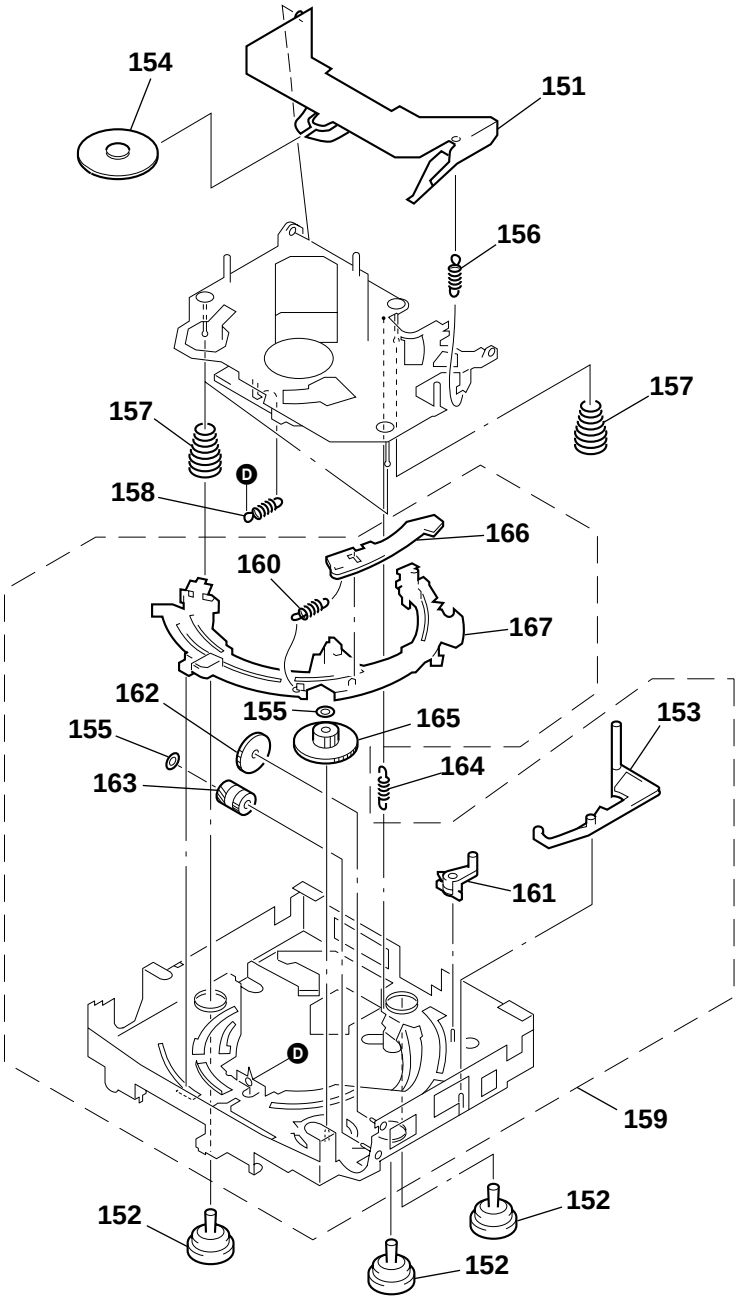
4-3. CD MECHANISM SECTION (1)
(MG-383V-121//Q)



Ref. No.	Part No.	Description	Remark
* 101	1-659-836-11	DISC IN SW BOARD	
* 102	A-3315-034-B	CHASSIS (T) ASSY	
103	3-931-909-01	SPRING (LR), TENSION	
104	3-047-477-01	SPRING (RA2), TENSION COIL	
105	3-338-737-01	SCREW (2X3), +PS	
* 106	1-659-837-11	LOAD SW BOARD	

Ref. No.	Part No.	Description	Remark
* 107	A-3326-232-A	SERVO BOARD, COMPLETE	
* 108	3-039-629-01	BRACKET (MOTOR)	
109	3-013-388-02	GUIDE (DISC)	
110	A-3315-040-A	ROLLER ASSY, ARM	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	

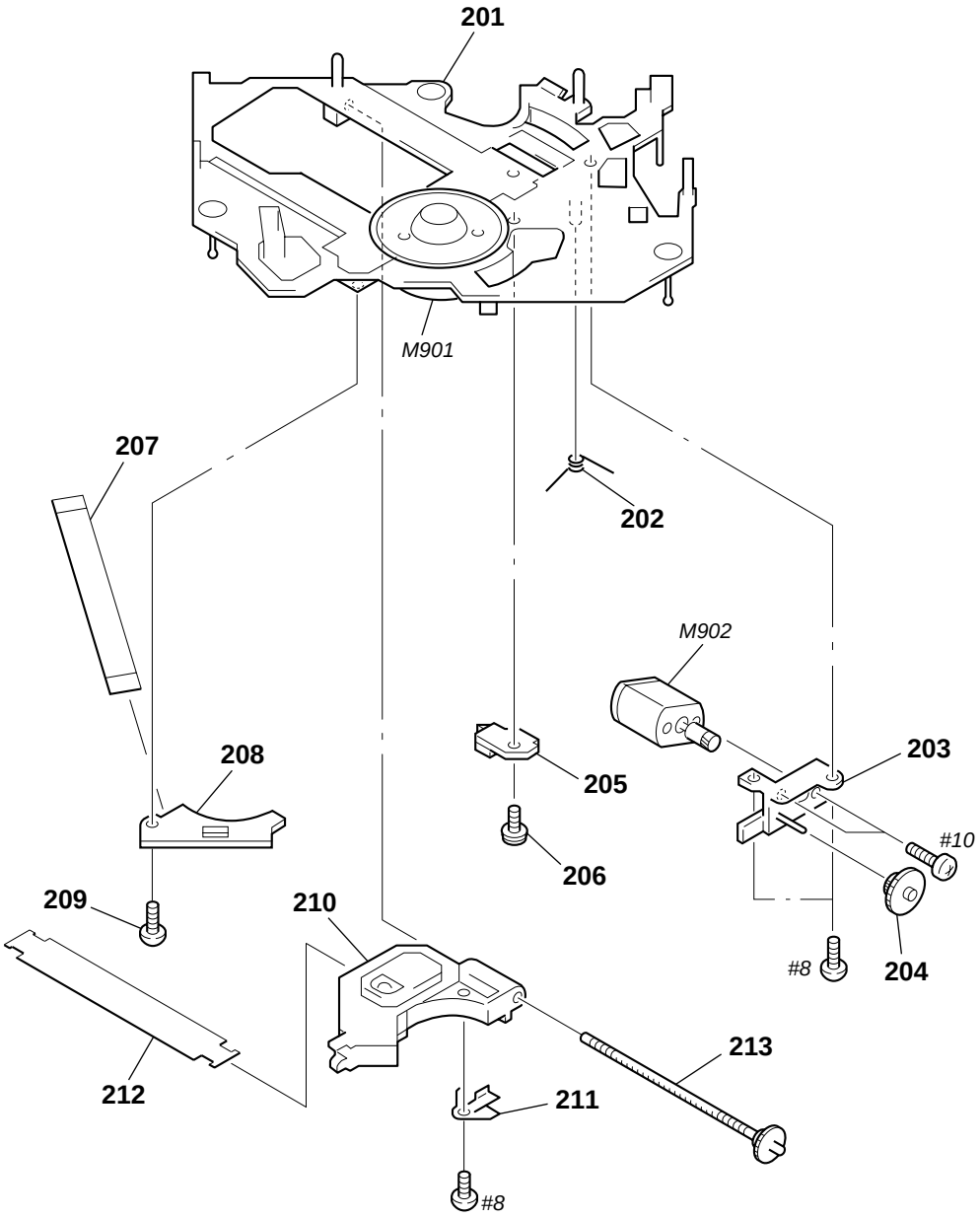
4-4. CD MECHANISM SECTION (2)
(MG-383V-121//Q)



Ref. No.	Part No.	Description	Remark
151	X-3378-956-1	ARM ASSY, CHUCKING	
152	3-931-897-61	DAMPER (T)	
153	3-039-627-01	LEVER (D)	
154	3-040-165-01	RETAINER (DISC)	
155	3-018-272-01	WASHER	
156	3-931-895-01	SPRING (CH), TENSION	
157	3-931-898-01	SPRING (FL), COMPRESSION	
158	3-032-483-02	SPRING (KF1), TENSION	
159	A-3307-471-A	OVERALL ASSY, CHASSIS (M)	

Ref. No.	Part No.	Description	Remark
160	3-931-883-01	SPRING (TR), TENSION	
161	3-931-881-01	LEVER (LOCK)	
162	3-931-882-02	GEAR (MDL)	
163	3-007-537-11	WHEEL (U), WORM	
164	3-032-484-01	SPRING (KR1), TENSION	
165	3-014-727-01	WHEEL (LW), WORM	
166	3-039-626-01	LEVER (TR)	
167	3-025-418-21	RING, LOADING	

4-5. CD MECHANISM SECTION (3)
(MG-383V-121//Q)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
201	X-3378-598-1	CHASSIS (OP) ASSY (INCLUDING M901)	
202	3-043-494-01	SPRING (SL), TORSION	
203	3-040-170-01	BASE (DRIVING)	
204	3-040-419-01	GEAR (MIDWAY)	
* 205	1-659-835-12	LIMIT SW BOARD	
206	3-338-737-01	SCREW (2X3), +PS	
207	1-659-880-11	MOTOR FLEXIBLE BOARD	

Ref. No.	Part No.	Description	Remark
* 208	1-659-834-11	SUB BOARD	
209	3-909-607-01	SCREW	
⚠210	8-820-103-03	PICK-UP, OPTICAL KSS-720A/K1RP	
211	3-931-834-01	SPRING (FEED), PLATE	
212	1-676-707-21	PICK-UP FLEXIBLE BOARD	
213	A-3291-669-A	SHAFT (FEED) ASSY	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	

SECTION 5
ELECTRICAL PARTS LIST

DISC IN SW **DSO**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
  G : German model

Ref. No.	Part No.	Description			Remark
*	1-659-836-11	DISC IN SW BOARD			
		**********			
		< SWITCH >			
SW1	1-572-288-21	SWITCH, PUSH (DISC IN)			
SW2	1-572-288-21	SWITCH, PUSH (SELF)			
**********					
*	A-3294-909-A	DSO BOARD, COMPLETE (SUPPLIED WITH MAIN BOARD, COMPLETE)			
		**********			
*	3-045-138-01	CASE (DSP), SHIELD			
		< CAPACITOR >			
C801	1-126-393-11	ELECT CHIP	33uF	20%	10V
C802	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C803	1-126-394-11	ELECT CHIP	10uF	20%	16V
C804	1-117-709-11	ELECT CHIP	10uF	20%	10V
C805	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C806	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C807	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C808	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C809	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C810	1-128-993-21	ELECT CHIP	22uF	20%	10V
C811	1-128-993-21	ELECT CHIP	22uF	20%	10V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C813	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C815	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C816	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C817	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C818	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C819	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C820	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-128-415-11	ELECT CHIP	68uF	20%	10V
C823	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C824	1-126-393-11	ELECT CHIP	33uF	20%	10V
C825	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C826	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C827	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C828	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C829	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C830	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C831	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C832	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C833	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C834	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C835	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C836	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C837	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C840	1-126-394-11	ELECT CHIP	10uF	20%	16V
C841	1-126-394-11	ELECT CHIP	10uF	20%	16V
C842	1-126-394-11	ELECT CHIP	10uF	20%	16V
C843	1-126-394-11	ELECT CHIP	10uF	20%	16V
C844	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C845	1-126-394-11	ELECT CHIP	10uF	20%	16V
C846	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C847	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C848	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C849	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C850	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C851	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C852	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C853	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C854	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C855	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C856	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C857	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C861	1-126-394-11	ELECT CHIP	10uF	20%	16V
C862	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C874	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C875	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C876	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C877	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C878	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C879	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C880	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C881	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
		< CONNECTOR >			
CN801	1-794-320-11	PIN, CONNECTOR (PC BOARD) 29P			
		< DIODE >			
D801	8-719-977-03	DIODE MA8056-M-TX			
D802	8-719-073-01	DIODE MA111-TX			
D804	8-719-421-82	DIODE MA8043-M(TX)			

DSO

Ref. No.	Part No.	Description			Remark
		< FERRITE BEAD >			
FB801	1-414-235-22	FERRITE BEAD INDUCTOR			
FB803	1-500-329-21	FERRITE BEAD INDUCTOR			
FB804	1-500-329-21	FERRITE BEAD INDUCTOR			
FB805	1-500-329-21	FERRITE BEAD INDUCTOR			
FB806	1-500-329-21	FERRITE BEAD INDUCTOR			
FB807	1-500-329-21	FERRITE BEAD INDUCTOR			
FB808	1-500-329-21	FERRITE BEAD INDUCTOR			
FB809	1-414-760-21	FERRITE BEAD INDUCTOR			
FB811	1-414-760-21	FERRITE BEAD INDUCTOR			
FB812	1-500-329-21	FERRITE BEAD INDUCTOR			
FB813	1-500-329-21	FERRITE BEAD INDUCTOR			
FB814	1-414-760-21	FERRITE BEAD INDUCTOR			
FB815	1-414-235-22	FERRITE BEAD INDUCTOR			
FB816	1-414-760-21	FERRITE BEAD INDUCTOR			
FB819	1-414-760-21	FERRITE BEAD INDUCTOR			
		< IC >			
IC801	8-759-710-88	IC NJM431U-TE2			
IC802	8-759-431-14	IC PQ3DZ53U			
IC803	8-759-524-05	IC TC74VHC126FT(EL)			
IC804	8-759-485-79	IC TC7SET08FU(TE85R)			
IC805	8-752-402-48	IC CXD2726Q-4			
IC807	8-759-711-82	IC NJM4580E(T1)			
IC808	8-759-711-82	IC NJM4580E(T1)			
IC809	8-759-711-82	IC NJM4580E(T1)			
		< COIL >			
L801	1-412-058-11	INDUCTOR CHIP	10uH		
L802	1-412-060-11	INDUCTOR CHIP	22uH		
		< TRANSISTOR >			
Q801	8-729-920-85	TRANSISTOR	2SD1664-T101-QR		
Q802	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R		
		< RESISTOR >			
R802	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/16W
R804	1-219-274-11	RES-CHIP	220	2%	1/16W
R805	1-216-813-11	METAL CHIP	220	5%	1/16W
R806	1-219-286-11	RES-CHIP	680	2%	1/16W
R807	1-216-864-11	METAL CHIP	0	5%	1/16W
R810	1-216-813-11	METAL CHIP	220	5%	1/16W
R811	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R812	1-216-859-11	RES-CHIP	1.5M	5%	1/16W
R813	1-216-864-11	METAL CHIP	0	5%	1/16W
R815	1-216-845-11	METAL CHIP	100K	5%	1/16W
R816	1-216-821-11	METAL CHIP	1K	5%	1/16W
R817	1-216-821-11	METAL CHIP	1K	5%	1/16W
R818	1-216-821-11	METAL CHIP	1K	5%	1/16W
R819	1-216-864-11	METAL CHIP	0	5%	1/16W
R820	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R822	1-216-809-11	METAL CHIP	100	5%	1/16W
R823	1-216-821-11	METAL CHIP	1K	5%	1/16W
R825	1-216-809-11	METAL CHIP	100	5%	1/16W
R826	1-216-864-11	METAL CHIP	0	5%	1/16W
R827	1-216-809-11	METAL CHIP	100	5%	1/16W
R828	1-216-805-11	METAL CHIP	47	5%	1/16W
R829	1-216-805-11	METAL CHIP	47	5%	1/16W
R830	1-216-864-11	METAL CHIP	0	5%	1/16W
R831	1-216-797-11	METAL CHIP	10	5%	1/16W
R832	1-216-821-11	METAL CHIP	1K	5%	1/16W
R837	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R838	1-216-841-11	METAL CHIP	47K	5%	1/16W
R839	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R840	1-216-841-11	METAL CHIP	47K	5%	1/16W
R841	1-216-841-11	METAL CHIP	47K	5%	1/16W
R842	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R843	1-216-833-11	RES-CHIP	10K	5%	1/16W
R844	1-216-841-11	METAL CHIP	47K	5%	1/16W
R845	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R846	1-216-833-11	RES-CHIP	10K	5%	1/16W
R847	1-216-833-11	RES-CHIP	10K	5%	1/16W
R848	1-216-841-11	METAL CHIP	47K	5%	1/16W
R849	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R850	1-216-833-11	RES-CHIP	10K	5%	1/16W
R851	1-216-833-11	RES-CHIP	10K	5%	1/16W
R852	1-216-833-11	RES-CHIP	10K	5%	1/16W
R853	1-216-833-11	RES-CHIP	10K	5%	1/16W
R854	1-216-833-11	RES-CHIP	10K	5%	1/16W
R855	1-216-833-11	RES-CHIP	10K	5%	1/16W
R856	1-216-833-11	RES-CHIP	10K	5%	1/16W
R857	1-216-833-11	RES-CHIP	10K	5%	1/16W
R858	1-216-833-11	RES-CHIP	10K	5%	1/16W
R859	1-216-833-11	RES-CHIP	10K	5%	1/16W
R860	1-216-833-11	RES-CHIP	10K	5%	1/16W
R861	1-216-833-11	RES-CHIP	10K	5%	1/16W
R862	1-216-797-11	METAL CHIP	10	5%	1/16W
R863	1-216-797-11	METAL CHIP	10	5%	1/16W
R864	1-216-797-11	METAL CHIP	10	5%	1/16W
R865	1-216-864-11	METAL CHIP	0	5%	1/16W
R867	1-216-845-11	METAL CHIP	100K	5%	1/16W
R868	1-216-864-11	METAL CHIP	0	5%	1/16W
R870	1-216-821-11	METAL CHIP	1K	5%	1/16W
R871	1-216-813-11	METAL CHIP	220	5%	1/16W
R872	1-216-864-11	METAL CHIP	0	5%	1/16W
R874	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R875	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R876	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R877	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R878	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R879	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R880	1-216-833-11	RES-CHIP	10K	5%	1/16W
R881	1-216-833-11	RES-CHIP	10K	5%	1/16W
R893	1-216-809-11	METAL CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R894	1-216-821-11	METAL CHIP	1K	5%	1/16W
R895	1-216-833-11	RES-CHIP	10K	5%	1/16W
R899	1-216-864-11	METAL CHIP	0	5%	1/16W
		< VIBRATOR >			
X801	1-767-467-11	VIBRATOR, CRYSTAL (16.9MHz)			

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KEY BOARD
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	1-694-660-11	CONDUCTIVE BOARD, CONNECTION			
*	3-040-992-02	HOLDER (LCD)			
*	3-040-993-01	PLATE (LCD), LIGHT GUIDE			
*	3-040-997-01	PLATE (LCD), GROUND			
*	3-041-371-02	SHEET (REFLECTOR)			
		< CAPACITOR >			
C951	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C952	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C953	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C956	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C960	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C961	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C962	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C963	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN901	1-794-065-21	PLUG, CONNECTOR 14P			
		< DIODE >			
D901	8-719-423-32	DIODE MA8120-M-TX			
D902	8-719-422-64	DIODE MA8062-M-TX			
D903	8-719-422-64	DIODE MA8062-M-TX			
D904	8-719-422-64	DIODE MA8062-M-TX			
D951	8-719-420-90	DIODE MA8051-M-TX			
D952	8-719-422-64	DIODE MA8062-M-TX			
D954	8-719-422-89	DIODE MA8082-H-TX			
		< IC >			
IC901	8-759-653-26	IC LC75878W			
IC951	8-749-012-25	IC RS-170-TU			
		< LIQUID CRYSTAL DISPLAY >			
LCD900	1-803-915-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED901	8-719-026-38	LED CL-150SR-CD-T			
LED902	8-719-026-38	LED CL-150SR-CD-T			
LED903	8-719-026-38	LED CL-150SR-CD-T			
LED904	8-719-026-38	LED CL-150SR-CD-T			
LED910	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED911	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED912	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED913	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED914	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED915	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
		< SWITCH >			
LSW901	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)			
LSW902	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW903	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOUND)			
LSW904	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU)			
LSW905	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DSPL)			
LSW906	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (LIST)			
LSW907	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER)			
LSW908	1-771-883-11	SWITCH, TACTILE (WITH LED) (MODE)			
LSW909	1-762-737-11	SWITCH, KEY BOARD (WITH LED) (DSO)			
LSW912	1-771-883-11	SWITCH, TACTILE (WITH LED) (6)			
LSW913	1-771-883-11	SWITCH, TACTILE (WITH LED) (5)			
LSW914	1-771-883-11	SWITCH, TACTILE (WITH LED) (4)			
LSW915	1-771-883-11	SWITCH, TACTILE (WITH LED) (3)			
LSW916	1-771-883-11	SWITCH, TACTILE (WITH LED) (2/SHUF)			
LSW917	1-771-883-11	SWITCH, TACTILE (WITH LED) (1/REP)			
		< TRANSISTOR >			
Q903	8-729-904-75	TRANSISTOR DTD114EK-T-146			
		< RESISTOR >			
R901	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R902	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R903	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R904	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R905	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R906	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R907	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R908	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R909	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R910	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R911	1-208-806-11	RES-CHIP	10K	2%	1/10W
R912	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R913	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R914	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R915	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R916	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R917	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R918	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R919	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R920	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R921	1-216-810-11	METAL CHIP	120	5%	1/16W
R923	1-216-812-11	METAL CHIP	180	5%	1/16W
R925	1-216-812-11	METAL CHIP	180	5%	1/16W
R927	1-216-037-00	METAL CHIP	330	5%	1/10W
R929	1-216-033-00	METAL CHIP	220	5%	1/10W
R931	1-216-813-11	METAL CHIP	220	5%	1/16W
R932	1-216-813-11	METAL CHIP	220	5%	1/16W

Ref. No.	Part No.	Description			Remark
R938	1-216-809-11	METAL CHIP	100	5%	1/16W
R939	1-216-813-11	METAL CHIP	220	5%	1/16W
R940	1-216-821-11	METAL CHIP	1K	5%	1/16W
R951	1-216-819-11	METAL CHIP	680	5%	1/16W
R952	1-216-807-11	METAL CHIP	68	5%	1/16W
R953	1-216-857-11	METAL CHIP	1M	5%	1/16W
R954	1-216-821-11	METAL CHIP	1K	5%	1/16W
R955	1-216-049-11	RES-CHIP	1K	5%	1/10W
R956	1-216-049-11	RES-CHIP	1K	5%	1/10W
R957	1-216-841-11	METAL CHIP	47K	5%	1/16W
R958	1-216-037-00	METAL CHIP	330	5%	1/10W
R960	1-216-041-00	METAL CHIP	470	5%	1/10W
R961	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R962	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R963	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R964	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R970	1-216-815-11	METAL CHIP	330	5%	1/16W
R971	1-216-815-11	METAL CHIP	330	5%	1/16W
R972	1-216-041-00	METAL CHIP	470	5%	1/10W
R973	1-216-815-11	METAL CHIP	330	5%	1/16W
R975	1-216-864-11	METAL CHIP	0	5%	1/16W
R976	1-216-815-11	METAL CHIP	330	5%	1/16W
R977	1-216-815-11	METAL CHIP	330	5%	1/16W
R978	1-216-815-11	METAL CHIP	330	5%	1/16W
R999	1-216-864-11	METAL CHIP	0	5%	1/16W
		< ROTARY ENCODER >			
RE901	1-475-014-11	ENCODER, ROTARY			
		< SWITCH >			
S901	1-771-884-11	SWITCH, TACTILE (WITH LED) (SEEK/AMS – ⏮ ◀◀)			
S902	1-771-884-11	SWITCH, TACTILE (WITH LED) (DISC+/PRST+)			
S903	1-771-884-11	SWITCH, TACTILE (WITH LED) (SEEK/AMS + ▶▶⏭ ▶▶)			
S904	1-771-884-11	SWITCH, TACTILE (WITH LED) (DISC–/PRST–)			
**********					
*	1-659-835-12	LIMIT SW BOARD			
		**********			
		< SWITCH >			
SW3	1-572-688-11	SWITCH, PUSH (1 KEY) (LIMIT)			
**********					
*	1-659-837-11	LOAD SW BOARD			
		**********			
		< SWITCH >			
SW4	1-572-288-21	SWITCH, PUSH (DOWN)			
**********					

Ref. No.	Part No.	Description			Remark
*	A-3294-903-A	MAIN BOARD, COMPLETE (INCLUDING DSO BOARD, COMPLETE)			
		**********			
*	3-040-996-32	HEATSINK (6P)			
*	3-040-998-01	BRACKET (IC)			
*	3-041-261-01	BRACKET (TR)			
*	3-045-994-01	COVER (DSP), SHIELD			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< BUZZER >			
BZ101	1-504-920-11	BUZZER			
		< CAPACITOR >			
C101	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C104	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C105	1-131-661-21	ELECT CHIP	100uF	20%	10V
C106	1-126-176-11	ELECT	220uF	20%	10V
C107	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-117-681-11	ELECT CHIP	100uF	20%	16V
C111	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C112	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C113	1-117-681-11	ELECT CHIP	100uF	20%	16V
C114	1-124-584-00	ELECT	100uF	20%	10V
C115	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C116	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C117	1-124-584-00	ELECT	100uF	20%	10V
C118	1-126-926-11	ELECT	1000uF	20%	10V
C119	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C120	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C121	1-104-942-11	ELECT	1uF	20%	50V
C122	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C123	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C124	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C126	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C128	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C129	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C130	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C214	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C215	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C219	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C220	1-126-157-11	ELECT	10uF	20%	16V
C223	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C224	1-126-157-11	ELECT	10uF	20%	16V
C226	1-124-589-11	ELECT	47uF	20%	16V
C227	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C230	1-124-589-11	ELECT	47uF	20%	16V
C231	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C234	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C237	1-126-157-11	ELECT	10uF	20%	16V
C246	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C301	1-164-346-11	CERAMIC CHIP	1uF		16V
C302	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C303	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C304	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C305	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C306	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C309	1-164-346-11	CERAMIC CHIP	1uF		16V
C311	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C312	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C314	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C315	1-124-589-11	ELECT	47uF	20%	16V
C316	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C317	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C318	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C319	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C320	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C321	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C322	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C323	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C324	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C325	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C326	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C327	1-124-589-11	ELECT	47uF	20%	16V
C328	1-124-589-11	ELECT	47uF	20%	16V
C329	1-124-589-11	ELECT	47uF	20%	16V
C330	1-124-584-00	ELECT	100uF	20%	10V
C331	1-124-584-00	ELECT	100uF	20%	10V
C332	1-124-584-00	ELECT	100uF	20%	10V
C333	1-124-584-00	ELECT	100uF	20%	10V
C334	1-124-584-00	ELECT	100uF	20%	10V
C335	1-124-584-00	ELECT	100uF	20%	10V
C336	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C337	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C338	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C339	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C340	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C341	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C342	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C343	1-126-157-11	ELECT	10uF	20%	16V
C344	1-126-157-11	ELECT	10uF	20%	16V
C345	1-126-157-11	ELECT	10uF	20%	16V
C346	1-126-157-11	ELECT	10uF	20%	16V
C347	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C348	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C349	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C350	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C351	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C352	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V

Ref. No.	Part No.	Description			Remark
C353	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C354	1-104-942-11	ELECT	1uF	20%	50V
C355	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C356	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C357	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C358	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C359	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C360	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C361	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C362	1-124-589-11	ELECT	47uF	20%	16V
C363	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C364	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C365	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C366	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C367	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C368	1-104-942-11	ELECT	1uF	20%	50V
C369	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C370	1-104-942-11	ELECT	1uF	20%	50V
C371	1-135-473-21	ELECT	3300uF	20%	16V
C372	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C373	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C374	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C375	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C376	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C377	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C378	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C379	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C380	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C381	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C382	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C383	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C384	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C385	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C386	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C387	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C401	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C402	1-124-589-11	ELECT	47uF	20%	16V
C404	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C406	1-131-661-21	ELECT CHIP	100uF	20%	10V
C407	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C408	1-128-057-11	ELECT	330uF	20%	6.3V
C501	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C502	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C506	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C507	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C508	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C509	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C510	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C513	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C514	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C515	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C517	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C518	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C519	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C601	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C602	1-124-229-00	ELECT	33uF	20%	10V
C603	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C604	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C605	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C606	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C607	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-104-942-11	ELECT	1uF	20%	50V
C703	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C704	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C705	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C706	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C707	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C708	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C709	1-126-154-11	ELECT	47uF	20%	6.3V
C710	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C711	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C712	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C713	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C714	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C715	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C751	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C752	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C753	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C754	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C755	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C756	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C757	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C759	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN101	1-774-701-11	PIN, CONNECTOR 16P			
* CN301	1-564-506-11	PLUG, CONNECTOR 3P (SUB OUT)			
CN401	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
CN601	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN701	1-770-408-11	CONNECTOR, BOARD TO BOARD 14P			
		< JACK >			
CN102	1-764-808-21	JACK (ANTENNA)			
CN302	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT)			
		< DIODE >			
D101	8-719-420-51	DIODE	MA729-TX		
D102	8-719-422-29	DIODE	MA8047-L-TX		
D103	8-719-060-81	DIODE	MA735-TX		
D104	8-719-801-78	DIODE	MA152WK-TX		

Ref. No.	Part No.	Description	Remark
D105	8-719-422-86	DIODE MA8082-L-TX	
D106	8-719-060-81	DIODE MA735-TX	
D107	8-719-422-62	DIODE MA8062-L-TX	
D108	8-719-422-86	DIODE MA8082-L-TX	
D109	8-719-977-12	DIODE MA8068-M-TX	
D201	8-719-422-41	DIODE MA8051-L-TX	
D202	8-719-422-16	DIODE MA8039-L-TX	
D205	8-719-073-01	DIODE MA111-TX	
D301	8-719-422-64	DIODE MA8062-M-TX	
D302	8-719-073-01	DIODE MA111-TX	
D352	8-719-420-14	DIODE MA8082-M(TX)	
D353	8-719-801-78	DIODE MA152WK-TX	
D354	8-719-801-78	DIODE MA152WK-TX	
D355	8-719-200-82	DIODE 11ES2-TB5	
D356	8-719-200-82	DIODE 11ES2-TB5	
D357	8-719-200-82	DIODE 11ES2-TB5	
D358	8-719-200-82	DIODE 11ES2-TB5	
D359	8-719-200-82	DIODE 11ES2-TB5	
D360	8-719-200-82	DIODE 11ES2-TB5	
D361	8-719-200-82	DIODE 11ES2-TB5	
D362	8-719-200-82	DIODE 11ES2-TB5	
D363	8-719-049-38	DIODE 1N5404TU	
D401	8-719-073-01	DIODE MA111-TX	
D502	8-719-073-01	DIODE MA111-TX	
D601	8-719-073-01	DIODE MA111-TX	
D602	8-719-073-01	DIODE MA111-TX	
D603	8-719-057-80	DIODE MA8180-M-TX	
D604	8-719-057-80	DIODE MA8180-M-TX	
D605	8-719-073-01	DIODE MA111-TX	
D606	8-719-057-80	DIODE MA8180-M-TX	
D607	8-719-977-12	DIODE MA8068-M-TX	
D608	8-719-420-51	DIODE MA729-TX	
D609	8-719-057-80	DIODE MA8180-M-TX	
D610	8-719-073-01	DIODE MA111-TX	
D611	8-719-073-01	DIODE MA111-TX	
D612	8-719-977-12	DIODE MA8068-M-TX	
D613	8-719-977-12	DIODE MA8068-M-TX	
D614	8-719-073-01	DIODE MA111-TX	
D701	8-719-400-20	DIODE MA152WA-TX	
D702	8-719-073-01	DIODE MA111-TX	
D703	8-719-801-78	DIODE MA152WK-TX	
D751	8-719-423-32	DIODE MA8120-M-TX	
D752	8-719-422-64	DIODE MA8062-M-TX	
D753	8-719-422-64	DIODE MA8062-M-TX	
D754	8-719-423-32	DIODE MA8120-M-TX	
D755	8-719-423-32	DIODE MA8120-M-TX	
D756	8-719-422-64	DIODE MA8062-M-TX	
D757	8-719-422-64	DIODE MA8062-M-TX	
D758	8-719-423-32	DIODE MA8120-M-TX	
D759	8-719-422-64	DIODE MA8062-M-TX	
D760	8-719-422-64	DIODE MA8062-M-TX	
D761	8-719-423-32	DIODE MA8120-M-TX	
D762	8-719-422-64	DIODE MA8062-M-TX	

Ref. No.	Part No.	Description	Remark
		< IC >	
IC301	8-759-653-27	IC TDA7402TR	
IC302	8-759-521-35	IC TL5001CDR	
IC303	8-759-593-97	IC NJM2160AM-TE2	
IC304	8-759-593-97	IC NJM2160AM-TE2	
IC305	8-759-593-97	IC NJM2160AM-TE2	
IC351	8-759-660-96	IC TDA7560	
IC502	8-759-670-66	IC MB90574PMT-G-263-BND	
IC503	8-759-581-75	IC XC61AN4102MR	
IC504	8-759-495-76	IC RN5VD33AA-TL	
IC601	8-759-449-89	IC BA8270F-E2	
IC701	8-759-670-68	IC HD6432355A10F	
IC702	8-759-277-63	IC TC7W14FU(TE12R)	
		< JACK >	
J651	1-566-822-41	JACK (REMOTE IN)	
		< COIL >	
L101	1-469-673-21	INDUCTOR 100uH	
L102	1-469-674-21	INDUCTOR 220uH	
L103	1-469-675-21	INDUCTOR 100uH	
L104	1-414-185-51	INDUCTOR 22uH	
L201	1-414-185-51	INDUCTOR 22uH	
L301	1-414-179-51	INDUCTOR 2.2uH	
L351	1-419-476-11	COIL, CHOKE 250uH	
L401	1-414-857-51	INDUCTOR 100uH	
L402	1-469-673-21	INDUCTOR 100uH	
L701	1-414-856-51	INDUCTOR 10uH	
		< TRANSISTOR >	
Q101	8-729-421-19	TRANSISTOR UN2213-TX	
Q102	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q103	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q104	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q105	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q106	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q107	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q108	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q109	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q110	8-729-040-17	TRANSISTOR 2SD2164-K	
Q111	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q112	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q113	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q201	8-729-920-85	TRANSISTOR 2SD1664-T101-QR	
Q202	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q203	8-729-106-60	TRANSISTOR 2SB1132-T101-QR	
Q204	8-729-421-22	TRANSISTOR UN2211-TX	
Q205	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q206	8-729-424-08	TRANSISTOR UN2111-TX	
Q207	8-729-421-22	TRANSISTOR UN2211-TX	
Q209	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q351	8-729-421-22	TRANSISTOR UN2211-TX	

Ref. No.	Part No.	Description	Remark
Q352	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q353	8-729-424-59	TRANSISTOR UN2212-TX	
Q354	8-729-424-18	TRANSISTOR UN2113-TX	
Q355	8-729-424-59	TRANSISTOR UN2212-TX	
Q356	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q357	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q358	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q359	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q360	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q361	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q363	8-729-421-22	TRANSISTOR UN2211-TX	
Q364	8-729-421-22	TRANSISTOR UN2211-TX	
Q365	8-729-807-35	TRANSISTOR 2SB1123-T-TD	
Q366	8-729-807-35	TRANSISTOR 2SB1123-T-TD	
Q402	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q403	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q406	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q407	8-729-421-22	TRANSISTOR UN2211-TX	
Q601	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q602	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q603	8-729-424-18	TRANSISTOR UN2113-TX	
Q604	8-729-421-22	TRANSISTOR UN2211-TX	
Q605	8-729-424-93	TRANSISTOR UN2121-TX	
Q701	8-729-424-08	TRANSISTOR UN2111-TX	
Q702	8-729-424-08	TRANSISTOR UN2111-TX	
Q703	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q704	8-729-822-84	TRANSISTOR 2SB1202FAT-TL	
Q705	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
		< RESISTOR >	
R101	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R102	1-218-879-11	METAL CHIP 22K 0.5% 1/16W	
R103	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R104	1-218-903-11	METAL CHIP 220K 0.5% 1/16W	
R105	1-216-832-11	METAL CHIP 8.2K 5% 1/16W	
R106	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R107	1-218-295-11	METAL CHIP 43K 5% 1/16W	
R108	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R109	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R110	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R111	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R112	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R113	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R114	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R115	1-216-041-00	METAL CHIP 470 5% 1/10W	
R116	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R117	1-216-037-00	METAL CHIP 330 5% 1/10W	
R118	1-216-813-11	METAL CHIP 220 5% 1/16W	
R119	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R120	1-216-817-11	METAL CHIP 470 5% 1/16W	
R121	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R122	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R123	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	

MAIN

Ref. No.	Part No.	Description			Remark
R124	1-216-845-11	METAL CHIP	100K	5%	1/16W
R125	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R126	1-216-845-11	METAL CHIP	100K	5%	1/16W
R127	1-216-833-11	RES-CHIP	10K	5%	1/16W
R128	1-216-839-11	METAL CHIP	33K	5%	1/16W
R129	1-216-833-11	RES-CHIP	10K	5%	1/16W
R130	1-216-077-11	RES-CHIP	15K	5%	1/10W
R131	1-216-841-11	METAL CHIP	47K	5%	1/16W
R132	1-216-845-11	METAL CHIP	100K	5%	1/16W
R133	1-216-841-11	METAL CHIP	47K	5%	1/16W
R134	1-216-845-11	METAL CHIP	100K	5%	1/16W
R136	1-216-833-11	RES-CHIP	10K	5%	1/16W
R137	1-216-833-11	RES-CHIP	10K	5%	1/16W
R138	1-216-295-00	SHORT	0		
R139	1-216-001-00	METAL CHIP	10	5%	1/10W
R140	1-216-041-00	METAL CHIP	470	5%	1/10W
R141	1-216-049-11	RES-CHIP	1K	5%	1/10W
R142	1-216-049-11	RES-CHIP	1K	5%	1/10W
R205	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R207	1-216-001-00	METAL CHIP	10	5%	1/10W
R209	1-216-025-11	METAL CHIP	100	5%	1/10W
R210	1-216-025-11	METAL CHIP	100	5%	1/10W
R213	1-216-864-11	METAL CHIP	0	5%	1/16W
R214	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R215	1-216-841-11	METAL CHIP	47K	5%	1/16W
R216	1-216-817-11	METAL CHIP	470	5%	1/16W
R217	1-216-839-11	METAL CHIP	33K	5%	1/16W
R218	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R219	1-216-833-11	RES-CHIP	10K	5%	1/16W
R220	1-216-819-11	METAL CHIP	680	5%	1/16W
R225	1-216-815-11	METAL CHIP	330	5%	1/16W
R229	1-216-797-11	METAL CHIP	10	5%	1/16W
R233	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R234	1-216-295-00	SHORT	0		
R235	1-216-295-00	SHORT	0		
R236	1-216-295-00	SHORT	0		
R301	1-216-864-11	METAL CHIP	0	5%	1/16W
R302	1-216-025-11	RES-CHIP	100	5%	1/10W
R305	1-216-817-11	METAL CHIP	470	5%	1/16W
R306	1-216-841-11	METAL CHIP	47K	5%	1/16W
R307	1-216-809-11	METAL CHIP	100	5%	1/16W
R310	1-216-809-11	METAL CHIP	100	5%	1/16W
R311	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-809-11	METAL CHIP	100	5%	1/16W
R314	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R317	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R318	1-216-081-00	METAL CHIP	22K	5%	1/10W
R319	1-216-081-00	METAL CHIP	22K	5%	1/10W
R320	1-216-081-00	METAL CHIP	22K	5%	1/10W
R321	1-216-081-00	METAL CHIP	22K	5%	1/10W
R322	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R323	1-216-081-00	METAL CHIP	22K	5%	1/10W
R324	1-216-049-11	RES-CHIP	1K	5%	1/10W
R325	1-216-085-00	METAL CHIP	33K	5%	1/10W
R326	1-216-085-00	METAL CHIP	33K	5%	1/10W
R327	1-216-085-00	METAL CHIP	33K	5%	1/10W
R328	1-216-085-00	METAL CHIP	33K	5%	1/10W
R329	1-216-085-00	METAL CHIP	33K	5%	1/10W
R330	1-216-085-00	METAL CHIP	33K	5%	1/10W
R337	1-216-089-11	RES-CHIP	47K	5%	1/10W
R338	1-216-833-11	METAL CHIP	10K	5%	1/16W
R339	1-216-089-11	RES-CHIP	47K	5%	1/10W
R340	1-216-073-00	METAL CHIP	10K	5%	1/10W
R341	1-216-864-11	METAL CHIP	0	5%	1/16W
R343	1-216-813-11	METAL CHIP	220	5%	1/16W
R344	1-216-813-11	METAL CHIP	220	5%	1/16W
R345	1-216-813-11	METAL CHIP	220	5%	1/16W
R346	1-216-813-11	METAL CHIP	220	5%	1/16W
R347	1-216-813-11	METAL CHIP	220	5%	1/16W
R348	1-216-813-11	METAL CHIP	220	5%	1/16W
R349	1-216-864-11	METAL CHIP	0	5%	1/16W
R350	1-216-073-00	METAL CHIP	10K	5%	1/10W
R351	1-216-837-11	METAL CHIP	22K	5%	1/16W
R352	1-216-837-11	METAL CHIP	22K	5%	1/16W
R353	1-216-837-11	METAL CHIP	22K	5%	1/16W
R354	1-216-837-11	METAL CHIP	22K	5%	1/16W
R355	1-216-081-00	METAL CHIP	22K	5%	1/10W
R356	1-216-081-00	METAL CHIP	22K	5%	1/10W
R357	1-216-841-11	METAL CHIP	47K	5%	1/16W
R358	1-216-841-11	METAL CHIP	47K	5%	1/16W
R359	1-216-821-11	METAL CHIP	1K	5%	1/16W
R360	1-216-864-11	METAL CHIP	0	5%	1/16W
R361	1-216-821-11	METAL CHIP	1K	5%	1/16W
R363	1-216-809-11	METAL CHIP	100	5%	1/16W
R364	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R365	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R366	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R367	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R368	1-216-222-00	RES-CHIP	10K	5%	1/8W
R369	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R370	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R371	1-216-833-11	RES-CHIP	10K	5%	1/16W
R372	1-216-833-11	RES-CHIP	10K	5%	1/16W
R373	1-216-222-00	RES-CHIP	10K	5%	1/8W
R374	1-216-222-00	RES-CHIP	10K	5%	1/8W
R375	1-216-864-11	METAL CHIP	0	5%	1/16W
R376	1-216-001-00	METAL CHIP	10	5%	1/10W
R377	1-216-001-00	METAL CHIP	10	5%	1/10W
R378	1-216-001-00	METAL CHIP	10	5%	1/10W
R379	1-216-001-00	METAL CHIP	10	5%	1/10W
R380	1-216-001-00	METAL CHIP	10	5%	1/10W
R381	1-216-001-00	METAL CHIP	10	5%	1/10W
R382	1-216-041-11	METAL CHIP	470	5%	1/10W
R383	1-216-041-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R384	1-216-041-11	METAL CHIP	470	5%	1/10W
R385	1-216-041-11	METAL CHIP	470	5%	1/10W
R386	1-216-041-11	METAL CHIP	470	5%	1/10W
R387	1-216-817-11	METAL CHIP	470	5%	1/16W
R388	1-216-817-11	METAL CHIP	470	5%	1/16W
R389	1-216-817-11	METAL CHIP	470	5%	1/16W
R390	1-216-864-11	METAL CHIP	0	5%	1/16W
R391	1-216-295-00	SHORT	0		
R392	1-216-864-11	METAL CHIP	0	5%	1/16W
R393	1-216-864-11	METAL CHIP	0	5%	1/16W
R398	1-216-041-11	METAL CHIP	470	5%	1/10W
R407	1-216-041-00	METAL CHIP	470	5%	1/10W
R410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R411	1-216-049-11	RES-CHIP	1K	5%	1/10W
R413	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R414	1-216-049-11	RES-CHIP	1K	5%	1/10W
R415	1-216-049-11	RES-CHIP	1K	5%	1/10W
R416	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R417	1-216-049-11	RES-CHIP	1K	5%	1/10W
R422	1-216-864-11	METAL CHIP	0	5%	1/16W
R501	1-216-081-00	METAL CHIP	22K	5%	1/10W
R502	1-216-864-11	METAL CHIP	0	5%	1/16W
R504	1-216-025-11	RES-CHIP	100	5%	1/10W
R506	1-216-049-11	RES-CHIP	1K	5%	1/10W
R507	1-216-049-11	RES-CHIP	1K	5%	1/10W
R508	1-216-049-11	RES-CHIP	1K	5%	1/10W
R509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R511	1-216-845-11	METAL CHIP	100K	5%	1/16W
R512	1-216-821-11	METAL CHIP	1K	5%	1/16W
R513	1-216-049-11	RES-CHIP	1K	5%	1/10W
R515	1-216-864-11	METAL CHIP	0	5%	1/16W
R516	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-049-11	RES-CHIP	1K	5%	1/10W
R518	1-216-833-11	RES-CHIP	10K	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R520	1-216-049-11	RES-CHIP	1K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W
R522	1-216-833-11	RES-CHIP	10K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-821-11	METAL CHIP	1K	5%	1/16W
R526	1-216-821-11	METAL CHIP	1K	5%	1/16W
R527	1-216-815-11	METAL CHIP	330	5%	1/16W
R528	1-216-821-11	METAL CHIP	1K	5%	1/16W
R529	1-216-049-11	RES-CHIP	1K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/16W
R531	1-216-821-11	METAL CHIP	1K	5%	1/16W
R532	1-216-821-11	METAL CHIP	1K	5%	1/16W
R533	1-216-809-11	METAL CHIP	100	5%	1/16W
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-821-11	METAL CHIP	1K	5%	1/16W
R536	1-216-821-11	METAL CHIP	1K	5%	1/16W
R537	1-216-845-11	METAL CHIP	100K	5%	1/16W
R538	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R540	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R542	1-216-833-11	RES-CHIP	10K	5%	1/16W
R543	1-216-097-11	RES-CHIP	100K	5%	1/10W
R544	1-216-845-11	METAL CHIP	100K	5%	1/16W
R545	1-216-097-11	RES-CHIP	100K	5%	1/10W
R547	1-216-845-11	METAL CHIP	100K	5%	1/16W
R548	1-216-845-11	METAL CHIP	100K	5%	1/16W
R549	1-216-049-11	RES-CHIP	1K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/16W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R601	1-216-089-11	RES-CHIP	47K	5%	1/10W
R602	1-216-845-11	METAL CHIP	100K	5%	1/16W
R603	1-216-025-11	RES-CHIP	100	5%	1/10W
R604	1-216-295-00	SHORT	0		
R605	1-216-025-11	RES-CHIP	100	5%	1/10W
R606	1-216-097-11	RES-CHIP	100K	5%	1/10W
R607	1-216-845-11	METAL CHIP	100K	5%	1/16W
R608	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R609	1-216-833-11	RES-CHIP	10K	5%	1/16W
R610	1-216-025-11	RES-CHIP	100	5%	1/10W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-216-089-11	RES-CHIP	47K	5%	1/10W
R614	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R615	1-216-073-00	METAL CHIP	10K	5%	1/10W
R616	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R617	1-216-025-11	RES-CHIP	100	5%	1/10W
R618	1-216-025-11	RES-CHIP	100	5%	1/10W
R701	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R702	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R703	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R704	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R705	1-216-833-11	RES-CHIP	10K	5%	1/16W
R706	1-216-041-00	METAL CHIP	470	5%	1/10W
R707	1-216-809-11	METAL CHIP	100	5%	1/16W
R708	1-216-821-11	METAL CHIP	1K	5%	1/16W
R709	1-216-821-11	METAL CHIP	1K	5%	1/16W
R710	1-216-821-11	METAL CHIP	1K	5%	1/16W
R711	1-216-821-11	METAL CHIP	1K	5%	1/16W
R712	1-216-809-11	METAL CHIP	100	5%	1/16W
R713	1-216-295-00	SHORT	0		
R714	1-216-049-11	RES-CHIP	1K	5%	1/10W
R715	1-216-864-11	METAL CHIP	0	5%	1/16W
R716	1-216-845-11	METAL CHIP	100K	5%	1/16W
R717	1-216-809-11	METAL CHIP	100	5%	1/16W
R718	1-216-025-11	RES-CHIP	100	5%	1/10W
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W
R720	1-216-049-11	RES-CHIP	1K	5%	1/10W
R721	1-216-025-11	RES-CHIP	100	5%	1/10W
R722	1-216-845-11	METAL CHIP	100K	5%	1/16W
R723	1-216-025-11	RES-CHIP	100	5%	1/10W
R724	1-216-809-11	METAL CHIP	100	5%	1/16W
R725	1-216-845-11	METAL CHIP	100K	5%	1/16W
R726	1-216-821-11	METAL CHIP	1K	5%	1/16W

MAIN **SERVO**

Ref. No.	Part No.	Description			Remark
R727	1-216-809-11	METAL CHIP	100	5%	1/16W
R728	1-216-809-11	METAL CHIP	100	5%	1/16W
R729	1-216-821-11	METAL CHIP	1K	5%	1/16W
R731	1-216-049-11	RES-CHIP	1K	5%	1/10W
R732	1-216-819-11	METAL CHIP	680	5%	1/16W
R733	1-216-845-11	METAL CHIP	100K	5%	1/16W
R734	1-216-845-11	METAL CHIP	100K	5%	1/16W
R735	1-216-864-11	METAL CHIP	0	5%	1/16W
R736	1-216-025-11	RES-CHIP	100	5%	1/10W
R737	1-216-025-11	RES-CHIP	100	5%	1/10W
R738	1-216-025-11	RES-CHIP	100	5%	1/10W
R739	1-216-845-11	METAL CHIP	100K	5%	1/16W
R740	1-216-845-11	METAL CHIP	100K	5%	1/16W
R741	1-216-845-11	METAL CHIP	100K	5%	1/16W
R742	1-216-821-11	METAL CHIP	1K	5%	1/16W
R743	1-216-864-11	METAL CHIP	0	5%	1/16W
		< SWITCH >			
S101	1-692-431-21	SWITCH, TACTILE (RESET)			
S102	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
		< THERMISTOR (POSITIVE) >			
TH101	1-801-792-21	THERMISTOR, POSITIVE			
TH102	1-810-940-11	THERMISTOR, POSITIVE			
TH103	1-810-940-11	THERMISTOR, POSITIVE			
		< TUNER >			
TUX201	A-3220-738-A	TUNER UNIT (TUX-020)			
		< VIBRATOR >			
X103	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X104	1-781-844-11	VIBRATOR, CRYSTAL (3.68MHz)			
X105	1-781-822-21	VIBRATOR, CERAMIC (18.432MHz)			
**********					
*	A-3326-232-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C103	1-104-609-11	ELECT CHIP	100uF	20%	4V
C104	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C106	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C107	1-115-156-11	CERAMIC CHIP	1uF		10V
C108	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C109	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C111	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C115	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C116	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C117	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C118	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C127	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C301	1-126-393-11	ELECT CHIP	33uF	20%	10V

Ref. No.	Part No.	Description			Remark
C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C304	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C305	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C306	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C307	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C308	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C309	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C310	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C311	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C501	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
C502	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C504	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C505	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C506	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C507	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C508	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C509	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C514	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C515	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C517	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C518	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C519	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C520	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C521	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C522	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C550	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C553	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C554	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD) 30P			
CN2	1-794-153-21	CONNECTOR, FPC (ZIF) 16P			
CN3	1-770-347-21	CONNECTOR, FPC 6P			
		< FERRITE BEAD >			
FB101	1-216-295-00	SHORT	0		
FB102	1-216-295-00	SHORT	0		
FB103	1-216-295-00	SHORT	0		
FB501	1-216-295-00	SHORT	0		
FB503	1-500-445-21	FERRITE BEAD INDUCTOR			
		< IC >			
IC1	8-752-095-36	IC XA2596M-T6			
IC5	8-752-914-87	IC XP84640-072Q			
IC7	8-759-653-67	IC A6556L-TE-L			
IC501	8-752-392-04	IC CXD2598Q			
		< JUMPER RESISTOR >			
JR502	1-216-864-11	METAL CHIP	0	5%	1/16W
JR503	1-216-864-11	METAL CHIP	0	5%	1/16W

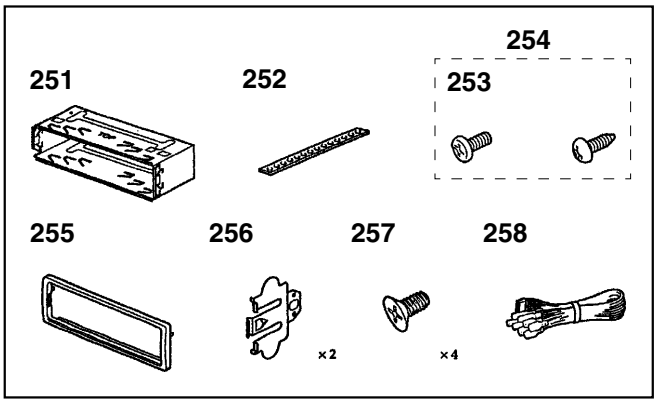
Ref. No.	Part No.	Description			Remark
JR504	1-216-864-11	METAL CHIP	0	5%	1/16W
JR507	1-216-295-00	SHORT	0		
		< TRANSISTOR >			
Q101	8-729-904-87	TRANSISTOR	2SB1197K-T-146-R		
		< RESISTOR >			
R101	1-216-847-11	METAL CHIP	150K	5%	1/16W
R102	1-216-847-11	METAL CHIP	150K	5%	1/16W
R103	1-216-158-00	RES-CHIP	22	5%	1/8W
R104	1-216-857-11	METAL CHIP	1M	5%	1/16W
R105	1-216-833-11	RES-CHIP	10K	5%	1/16W
R106	1-216-857-11	METAL CHIP	1M	5%	1/16W
R107	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R110	1-216-837-11	METAL CHIP	22K	5%	1/16W
R111	1-216-833-11	RES-CHIP	10K	5%	1/16W
R113	1-216-839-11	METAL CHIP	33K	5%	1/16W
R116	1-216-845-11	METAL CHIP	100K	5%	1/16W
R122	1-216-845-11	METAL CHIP	100K	5%	1/16W
R123	1-216-839-11	METAL CHIP	33K	5%	1/16W
R126	1-216-842-11	METAL CHIP	56K	5%	1/16W
R127	1-216-821-11	METAL CHIP	1K	5%	1/16W
R213	1-216-821-11	METAL CHIP	1K	5%	1/16W
R214	1-216-821-11	METAL CHIP	1K	5%	1/16W
R301	1-216-843-11	METAL CHIP	68K	5%	1/16W
R302	1-216-839-11	METAL CHIP	33K	5%	1/16W
R303	1-216-821-11	METAL CHIP	1K	5%	1/16W
R304	1-216-839-11	METAL CHIP	33K	5%	1/16W
R306	1-216-833-11	RES-CHIP	10K	5%	1/16W
R307	1-216-833-11	RES-CHIP	10K	5%	1/16W
R308	1-216-833-11	RES-CHIP	10K	5%	1/16W
R309	1-216-833-11	RES-CHIP	10K	5%	1/16W
R310	1-216-833-11	RES-CHIP	10K	5%	1/16W
R311	1-216-833-11	RES-CHIP	10K	5%	1/16W
R312	1-216-845-11	METAL CHIP	100K	5%	1/16W
R313	1-216-842-11	METAL CHIP	56K	5%	1/16W
R314	1-216-842-11	METAL CHIP	56K	5%	1/16W
R315	1-216-842-11	METAL CHIP	56K	5%	1/16W
R316	1-216-842-11	METAL CHIP	56K	5%	1/16W
R317	1-216-838-11	METAL CHIP	27K	5%	1/16W
R318	1-216-842-11	METAL CHIP	56K	5%	1/16W
R319	1-216-842-11	METAL CHIP	56K	5%	1/16W
R320	1-216-833-11	RES-CHIP	10K	5%	1/16W
R321	1-216-846-11	METAL CHIP	120K	5%	1/16W
R322	1-216-835-11	METAL CHIP	15K	5%	1/16W
R501	1-216-833-11	RES-CHIP	10K	5%	1/16W
R503	1-216-845-11	METAL CHIP	100K	5%	1/16W
R504	1-216-857-11	METAL CHIP	1M	5%	1/16W
R505	1-216-839-11	METAL CHIP	33K	5%	1/16W
R506	1-216-845-11	METAL CHIP	100K	5%	1/16W
R507	1-216-827-11	METAL CHIP	3.3K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R508	1-216-809-11	METAL CHIP	100	5%	1/16W
R509	1-216-809-11	METAL CHIP	100	5%	1/16W
R510	1-216-809-11	METAL CHIP	100	5%	1/16W
R511	1-216-845-11	METAL CHIP	100K	5%	1/16W
R513	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R514	1-216-809-11	METAL CHIP	100	5%	1/16W
R515	1-216-864-11	METAL CHIP	0	5%	1/16W
R516	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-837-11	METAL CHIP	22K	5%	1/16W
R524	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-845-11	METAL CHIP	100K	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R531	1-216-809-11	METAL CHIP	100	5%	1/16W
R532	1-216-845-11	METAL CHIP	100K	5%	1/16W
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R551	1-216-841-11	METAL CHIP	47K	5%	1/16W
R552	1-216-841-11	METAL CHIP	47K	5%	1/16W
R553	1-216-845-11	METAL CHIP	100K	5%	1/16W
R554	1-216-845-11	METAL CHIP	100K	5%	1/16W
R555	1-216-845-11	METAL CHIP	100K	5%	1/16W
R559	1-216-845-11	METAL CHIP	100K	5%	1/16W
R560	1-216-809-11	METAL CHIP	100	5%	1/16W
R563	1-216-809-11	METAL CHIP	100	5%	1/16W
R564	1-216-845-11	METAL CHIP	100K	5%	1/16W
R568	1-216-837-11	METAL CHIP	22K	5%	1/16W
R569	1-216-809-11	METAL CHIP	100	5%	1/16W
R570	1-216-821-11	METAL CHIP	1K	5%	1/16W
R572	1-216-809-11	METAL CHIP	100	5%	1/16W
R590	1-216-845-11	METAL CHIP	100K	5%	1/16W
R594	1-216-845-11	METAL CHIP	100K	5%	1/16W
R595	1-216-845-11	METAL CHIP	100K	5%	1/16W
		< VIBRATOR >			
X1	1-781-758-21	VIBRATOR, CERAMIC (CHIP TYPE) (10MHz)			
**********					
*	1-659-834-11	SUB BOARD			
		**********			
		< CONNECTOR >			
CN1	1-770-347-21	CONNECTOR, FPC 6P			
**********					
*	1-677-863-11	SUB (CD) BOARD			
		**********			
	3-039-443-11	SHEET (CONNECTOR)			
		< CONNECTOR >			
CN771	1-794-064-11	SOCKET, CONNECTOR 14P			
CN772	1-770-736-21	SOCKET, CONNECTOR 14P			

SUB (CD)

Ref. No.	Part No.	Description			Remark
		< DIODE >			
LED771	8-719-037-97	LED CL-190R-CD-T (DISC IN)			
LED772	8-719-037-97	LED CL-190R-CD-T (DISC IN)			
LED773	8-719-037-97	LED CL-190R-CD-T (DISC IN)			
		< SWITCH >			
LSW771	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏏)			
		< TRANSISTOR >			
Q771	8-729-421-22	TRANSISTOR UN2211-TX			
Q772	8-729-903-46	TRANSISTOR 2SB1132-T100-QR			
		< RESISTOR >			
R771	1-216-025-11	RES-CHIP	100	5%	1/10W
R772	1-216-049-11	RES-CHIP	1K	5%	1/10W
R773	1-216-049-11	RES-CHIP	1K	5%	1/10W
R774	1-216-176-11	RES-CHIP	120	5%	1/8W
**********					
		MISCELLANEOUS			
		**********			
9	1-792-194-11	CORD (WITH CONNECTOR) (POWER)			
18	1-792-602-11	CORD (WITH CONNECTOR) (SUB OUT)			
201	X-3378-598-1	CHASSIS (OP) ASSY (INCLUDING M901)			
207	1-659-880-11	MOTOR FLEXIBLE BOARD			
⚠210	8-820-103-03	PICK-UP, OPTICAL KSS-720A/K1RP			
212	1-676-707-21	PICK-UP FLEXIBLE BOARD			
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A			
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)			
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)			
**********					
		ACCESSORIES & PACKING MATERIALS			
		**********			
	1-418-812-11	REMOTE COMMANDER (RM-X91)			
	3-044-623-01	LID, BATTERY CASE (for RM-X91)			
	3-045-190-11	MANUAL, INSTRUCTION (ENGLISH)			
	3-045-193-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH)			
	X-3378-490-1	CASE (PANEL) ASSY (for FRONT PANEL)			
**********					

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#2	7-685-791-09	SCREW +PTT 2.6X5 (S)	
#3	7-685-795-09	SCREW +PTT 2.6X12 (S)	
#4	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#5	7-621-772-20	SCREW +B 2X5	
#6	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#7	7-628-253-00	SCREW +PS 2X4	
#8	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#9	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE3	
#10	7-627-850-28	SCREW, PRECISION +P 1.4X3	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
251	X-3373-602-1	FRAME ASSY, FITTING	
252	3-924-961-01	SUPPORT (ND), FITTING	
253	7-682-160-01	SCREW +P 4X6	
254	X-3368-725-1	SCREW ASSY, FITTING	
255	3-040-979-01	COLLAR	
256	3-233-644-01	SPRING, FITTING	
257	3-934-325-01	SCREW, +K (5X8) TAPPING	
258	1-792-194-11	CORD (WITH CONNECTOR) (POWER)	



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

CDX-C8050X

SONY

US Model

SERVICE MANUAL

SUPPLEMENT-1

File this supplement with the service manual.

Subject : Service Notes

(ENG-00015)

SERVICE NOTES

Laser Diode Properties

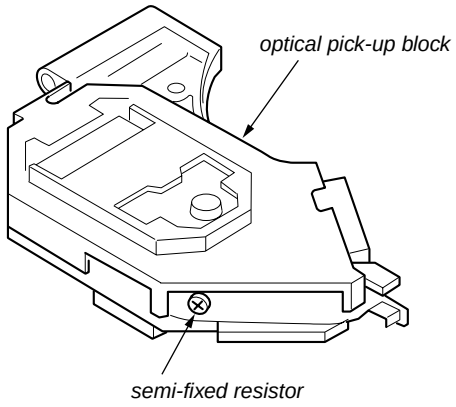
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser output power	Less than 44.6 µW*

* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.*

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



9-870-128-81

Sony Corporation
Audio Entertainment Group

2000G0411-1D
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MEMO

CDX-C8050X

SONY

US Model

SERVICE MANUAL

SUPPLEMENT-2

File this supplement with the service manual.

Subject : Correction
Change of Circuit Boards.

(ECN-CSA02398, CSA02816, CSA02817)

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9-870-128-82

Sony Corporation
Audio Entertainment Group

2000H0410-1

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1. CORRECTION

☛ : indicates corrected portion.

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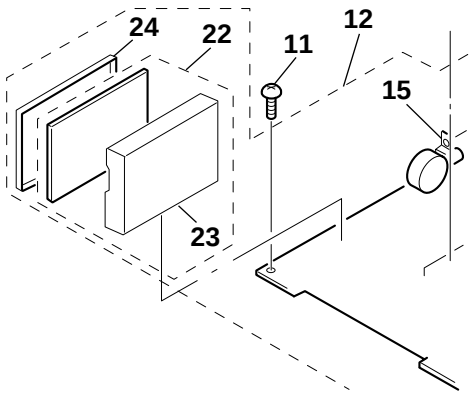
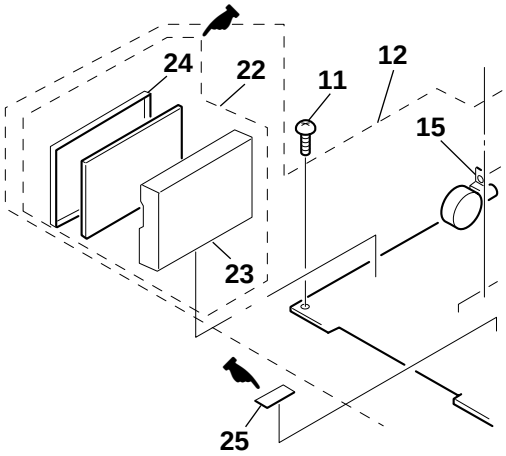
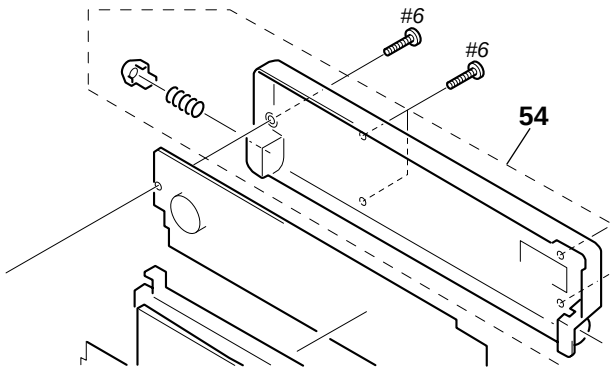
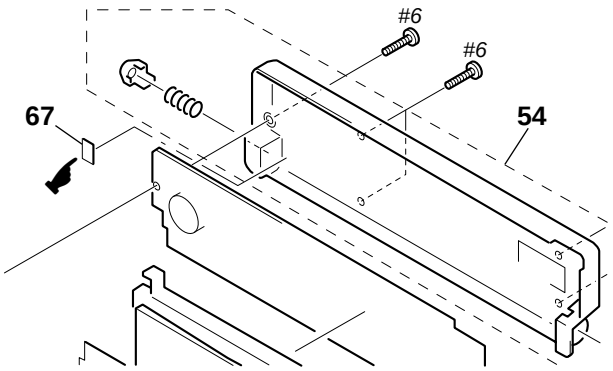
INCORRECT	CORRECT
	

Ref. No.	Part No.	Description	Remark
18	1-792-602-11	CORD (WITH CONNECTOR) (SUB OUT)	
21	3-035-250-02	SCREW (LOCK)	

Ref. No.	Part No.	Description	Remark
18	1-790-355-52	CORD (WITH CONNECTOR) (RCA) (SUB OUT)	
21	3-047-812-01	SCREW (LOCK)	
* 25	3-049-439-02	SHEET (IC), RADIATION	

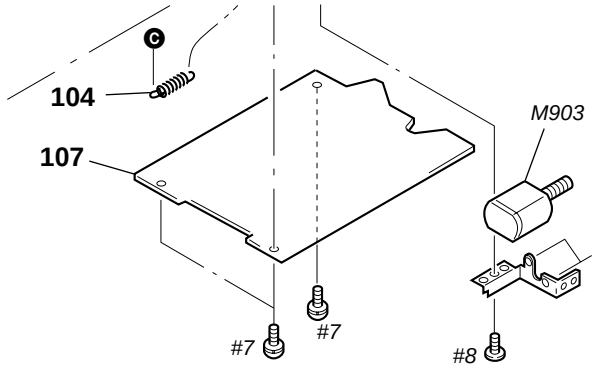
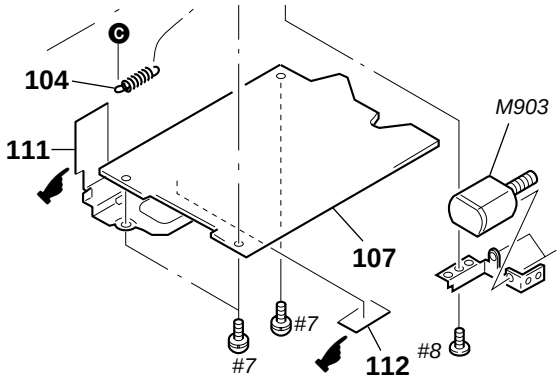
Page 49.

INCORRECT	CORRECT
	

Ref. No.	Part No.	Description	Remark
* 66	3-041-371-02	SHEET (REFLECTOR)	

Ref. No.	Part No.	Description	Remark
* 66	3-041-371-11	SHEET (REFLECTOR)	
67	3-045-596-01	CUSHION (OFF)	

Page 50.

INCORRECT	CORRECT
	

Ref. No.	Part No.	Description	Remark

Ref. No.	Part No.	Description	Remark
* 111	3-045-857-01	HEAT SINK (CD)	
112	3-046-626-01	SHEET, RADITION	

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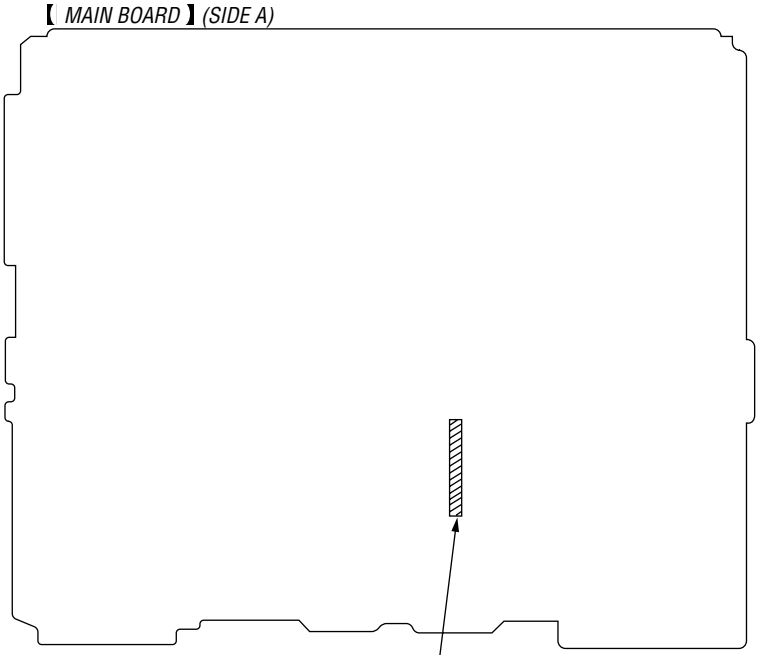
INCORRECT				CORRECT			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
18	1-792-602-11	CORD (WITH CONNECTOR) (SUB OUT)		18	1-790-355-52	CORD (WITH CONNECTOR) (RCA) (SUB OUT)	

2. CHANGE OF CIRCUIT BOARDS

When performing service and inspection, check the part number of the main, DSO, sub (CD) and key boards.

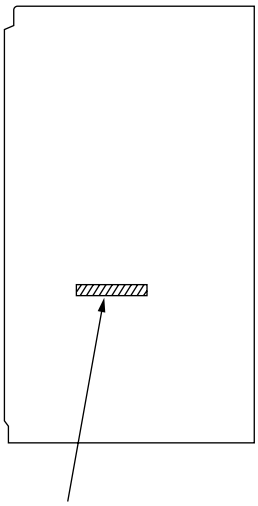
2-1. DISCRIMINATION

【 MAIN BOARD 】(SIDE A)



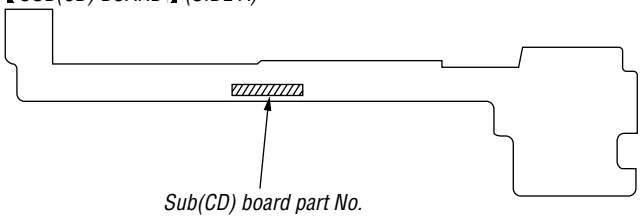
Main board part No.
Former : 1-677-862-11
New : 1-677-862-12

【DSO BOARD 】(SIDE A)



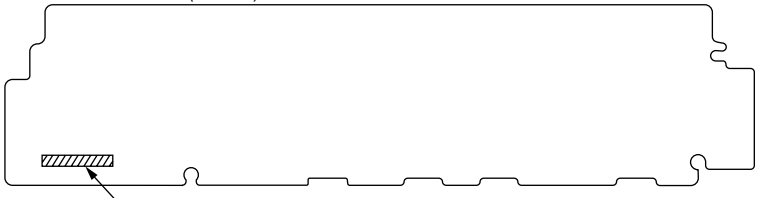
DSO board part No.
Former : 1-677-864-11
New : 1-677-864-12

【 SUB(CD) BOARD 】(SIDE A)



Sub(CD) board part No.
Former : 1-677-863-11
New : 1-677-863-12

【 KEY BOARD 】(SIDE A)



Key board part No.
Former : 1-677-058-12
New : 1-677-058-13

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

( ) : Refer to page of supplement-2.
< > : Refer to page of service manual.

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : CD

for printed wiring boards:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

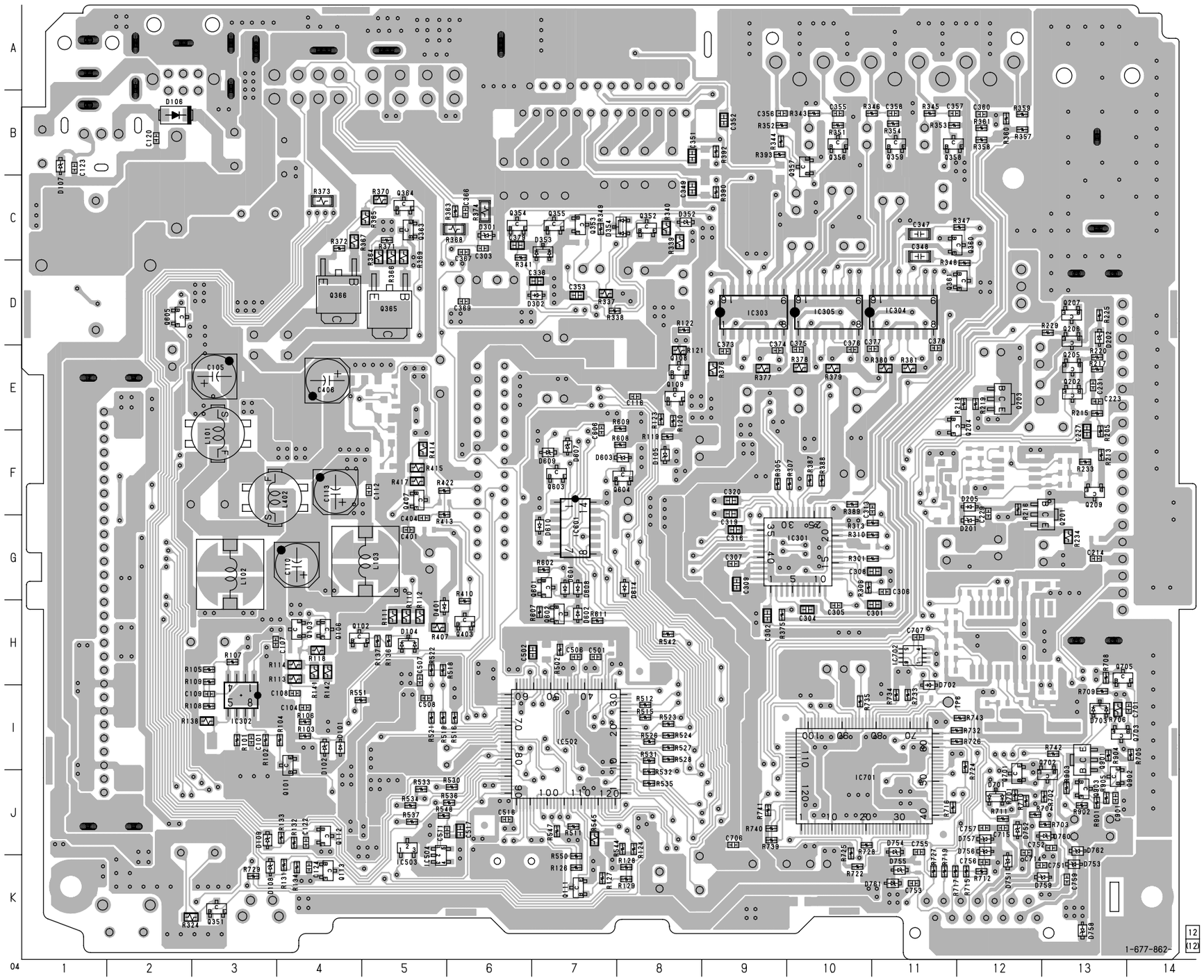
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

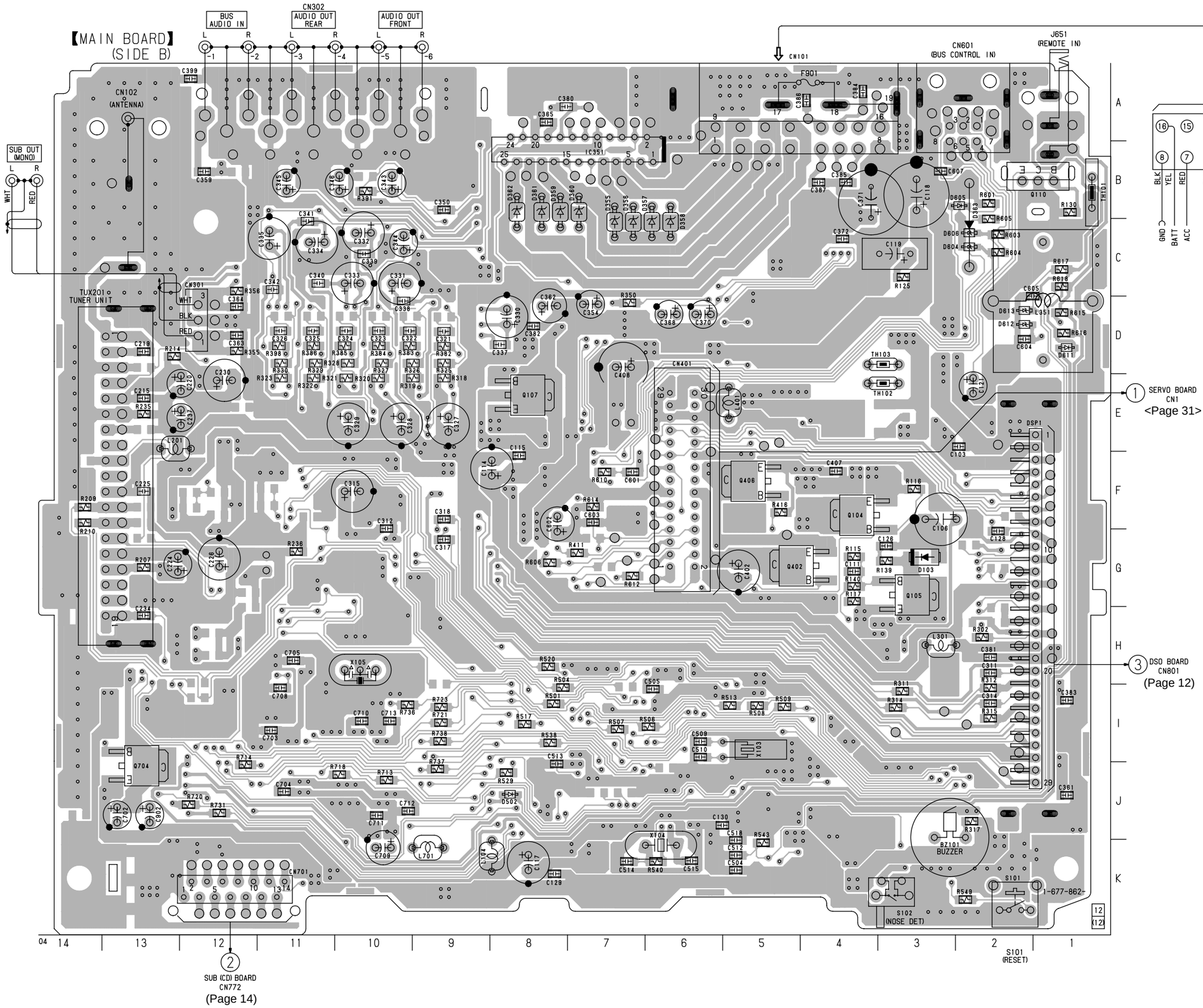
2-2. PRINTED WIRING BOARD — MAIN SECTION —

• Semiconductor Location (Side A)

Ref. No.	Location	Ref. No.	Location
D101	I-4	IC701	J-10
D102	I-4	IC702	H-11
D104	H-5		
D105	F-8	Q101	I-4
D106	B-2	Q102	H-4
D107	B-1	Q103	H-4
D108	K-3	Q106	H-4
D109	J-3	Q108	E-8
D201	G-12	Q109	E-8
D202	D-13	Q111	K-7
D205	F-12	Q112	J-4
D301	C-6	Q113	K-4
D302	D-7	Q201	F-13
D352	C-8	Q202	E-13
D353	C-7	Q203	E-12
D354	C-8	Q204	E-12
D401	H-5	Q205	E-13
D601	G-7	Q206	D-13
D602	H-7	Q207	D-13
D603	F-8	Q209	F-13
D607	F-7	Q351	K-3
D608	G-7	Q352	C-8
D609	F-7	Q353	C-7
D610	G-7	Q354	C-6
D614	G-8	Q355	C-7
D701	J-12	Q356	B-10
D702	H-11	Q357	B-10
D703	I-13	Q358	B-11
D751	K-12	Q359	B-11
D752	J-12	Q360	C-12
D753	K-13	Q361	D-12
D754	K-11	Q363	C-5
D755	K-11	Q364	C-5
D756	J-12	Q365	D-5
D757	J-12	Q366	D-4
D758	K-13	Q403	H-6
D759	K-13	Q407	F-5
D760	J-13	Q601	G-7
D761	K-11	Q602	H-7
D762	J-13	Q603	F-7
		Q604	F-8
IC301	G-10	Q605	D-2
IC302	I-3	Q701	J-12
IC303	D-9	Q702	J-13
IC304	D-11	Q703	I-13
IC305	D-10	Q705	H-13
IC502	I-7	Q901	I-13
IC503	J-5	Q902	J-13
IC504	J-5	Q903	J-13
IC601	G-7		

【MAIN BOARD】(SIDE A)

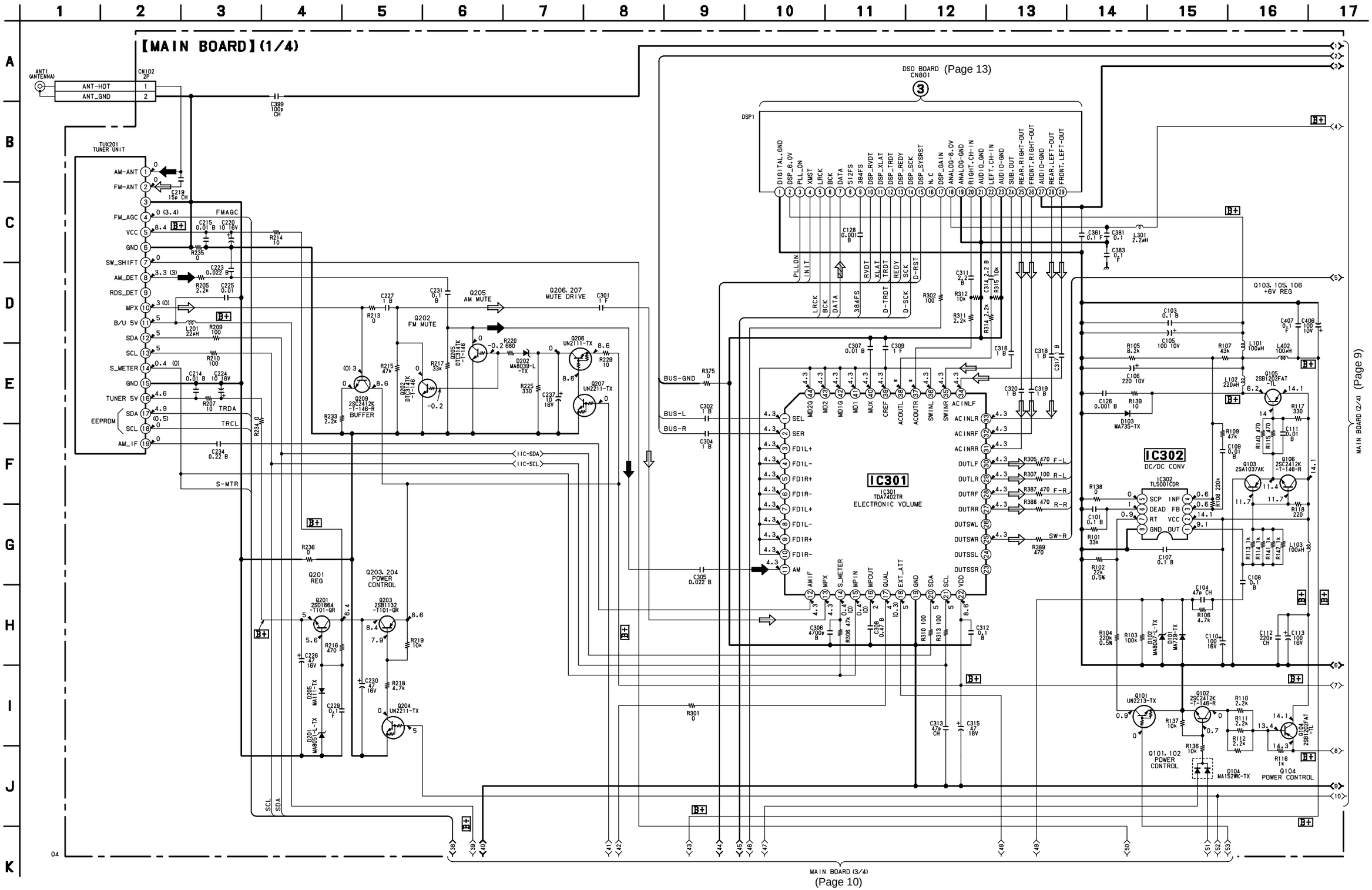




- **Semiconductor Location (Side B)**

Ref. No.	Location
D103	G-3
D355	B-7
D356	B-7
D357	B-7
D358	B-6
D359	B-8
D360	B-7
D361	B-8
D362	B-8
D363	B-2
D502	J-8
D604	C-2
D605	B-2
D606	C-2
D611	D-1
D612	D-2
D613	D-2
IC351	B-7
Q104	F-4
Q105	G-3
Q107	E-8
Q110	B-1
Q402	G-5
Q406	F-5
Q704	J-13

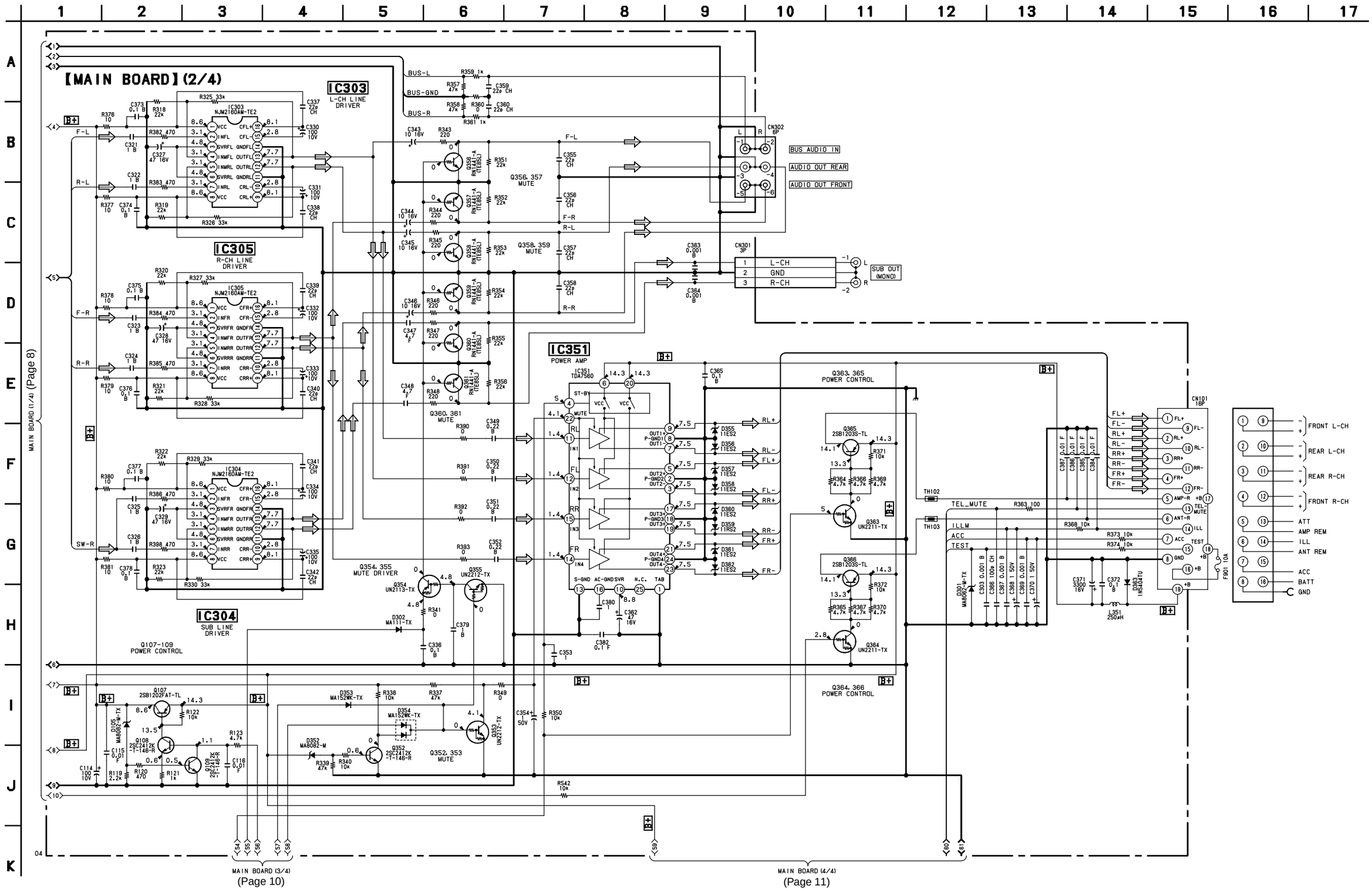
2-3. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 46 of Service manual for IC Block Diagrams.



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM
  * : Impossible to measure

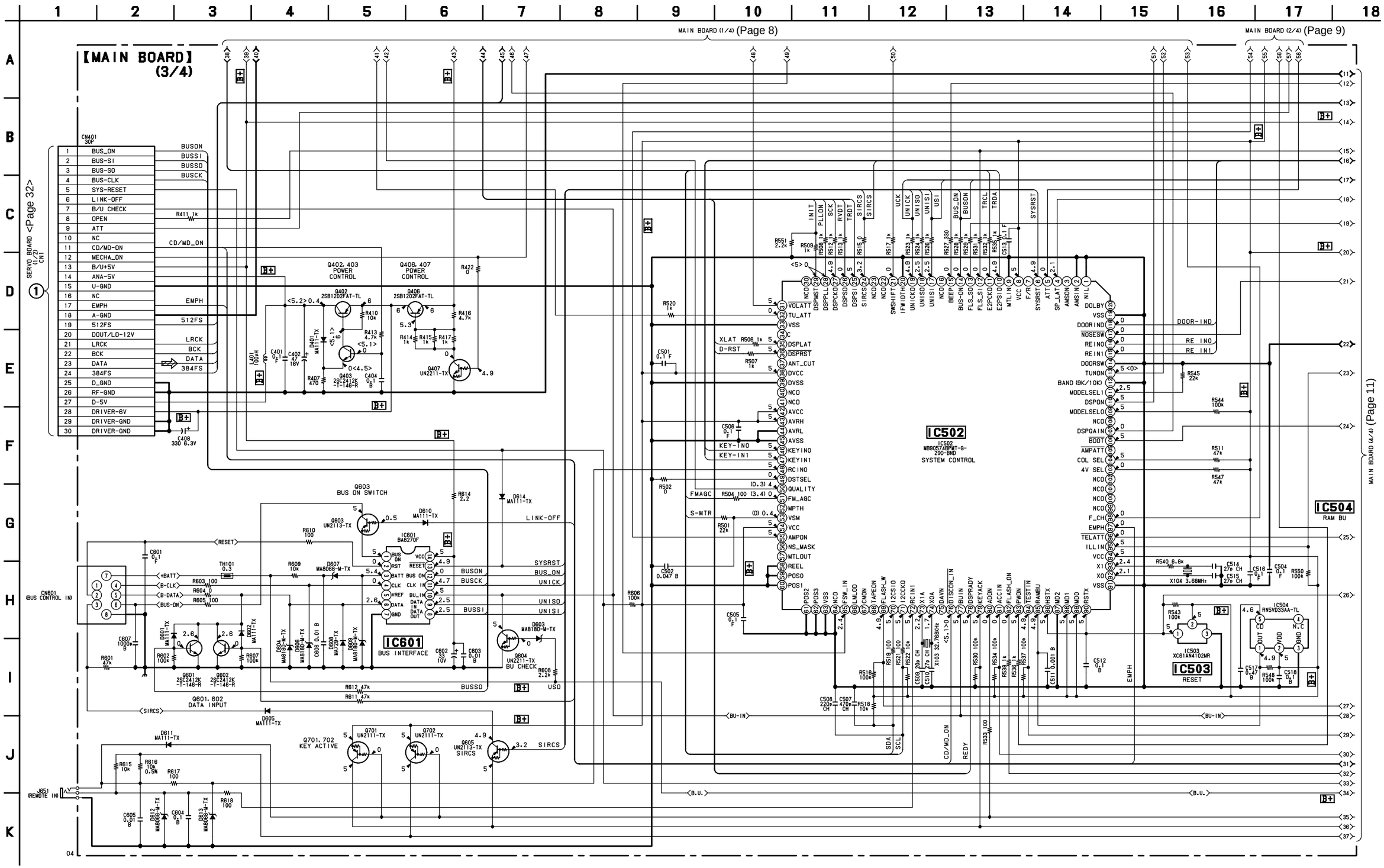
2-4. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —



Note:

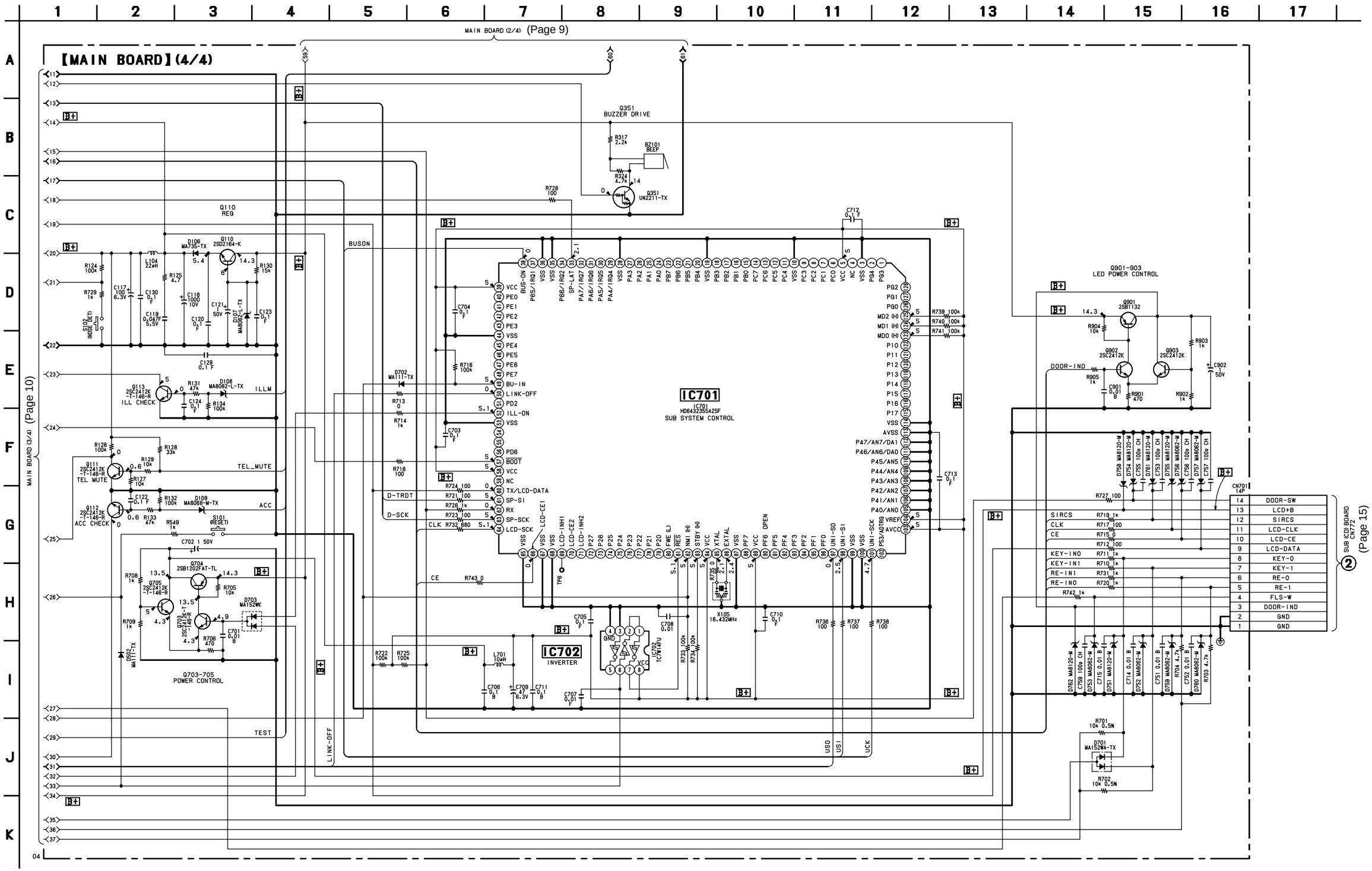
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

2-5. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 46 of Service manual for IC Block Diagrams.



Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM
  < > : CD PLAY

2-6. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

2-7. PRINTED WIRING BOARD — DSO SECTION —

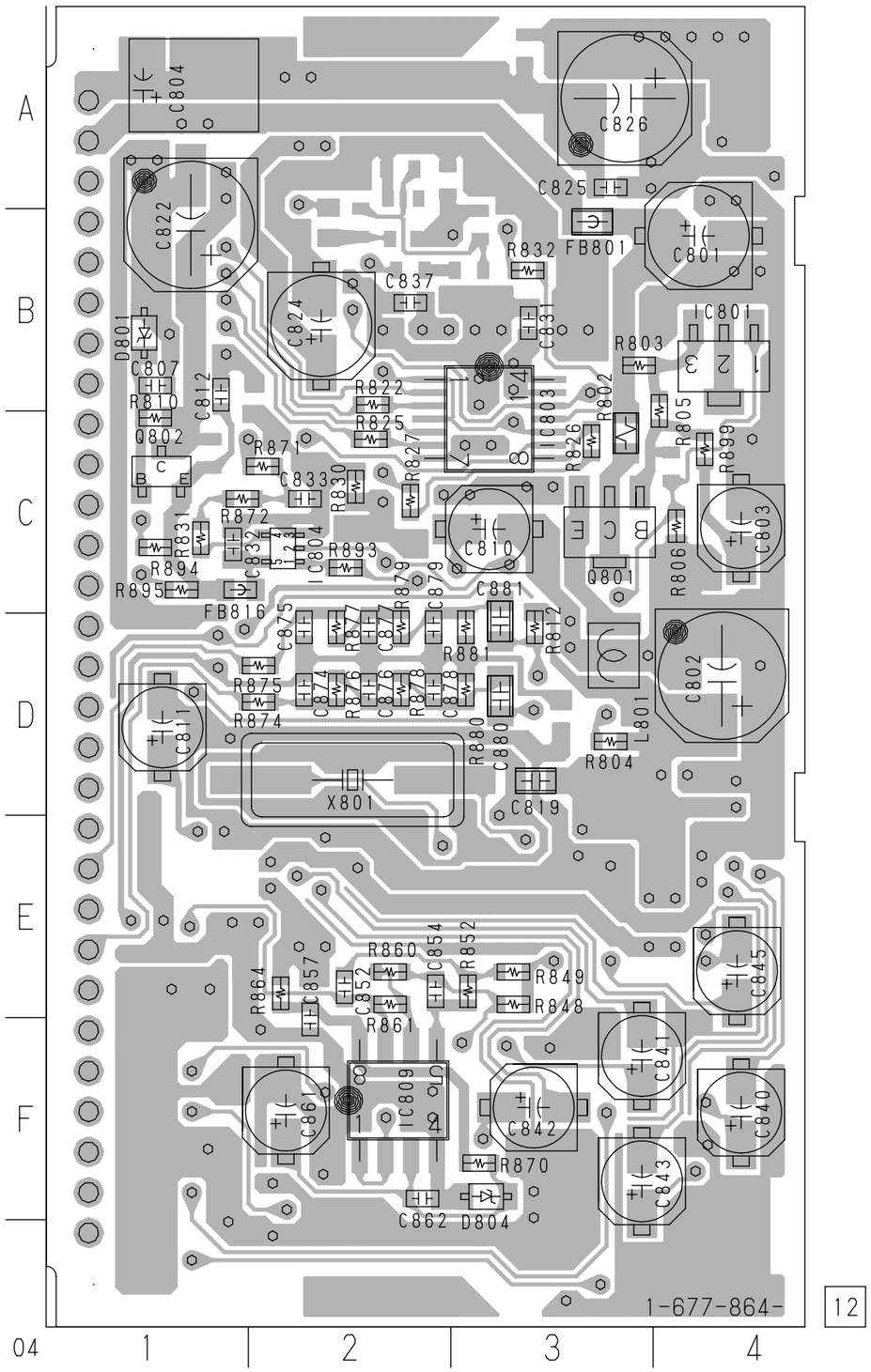
【DSO BOARD】(SIDE A)

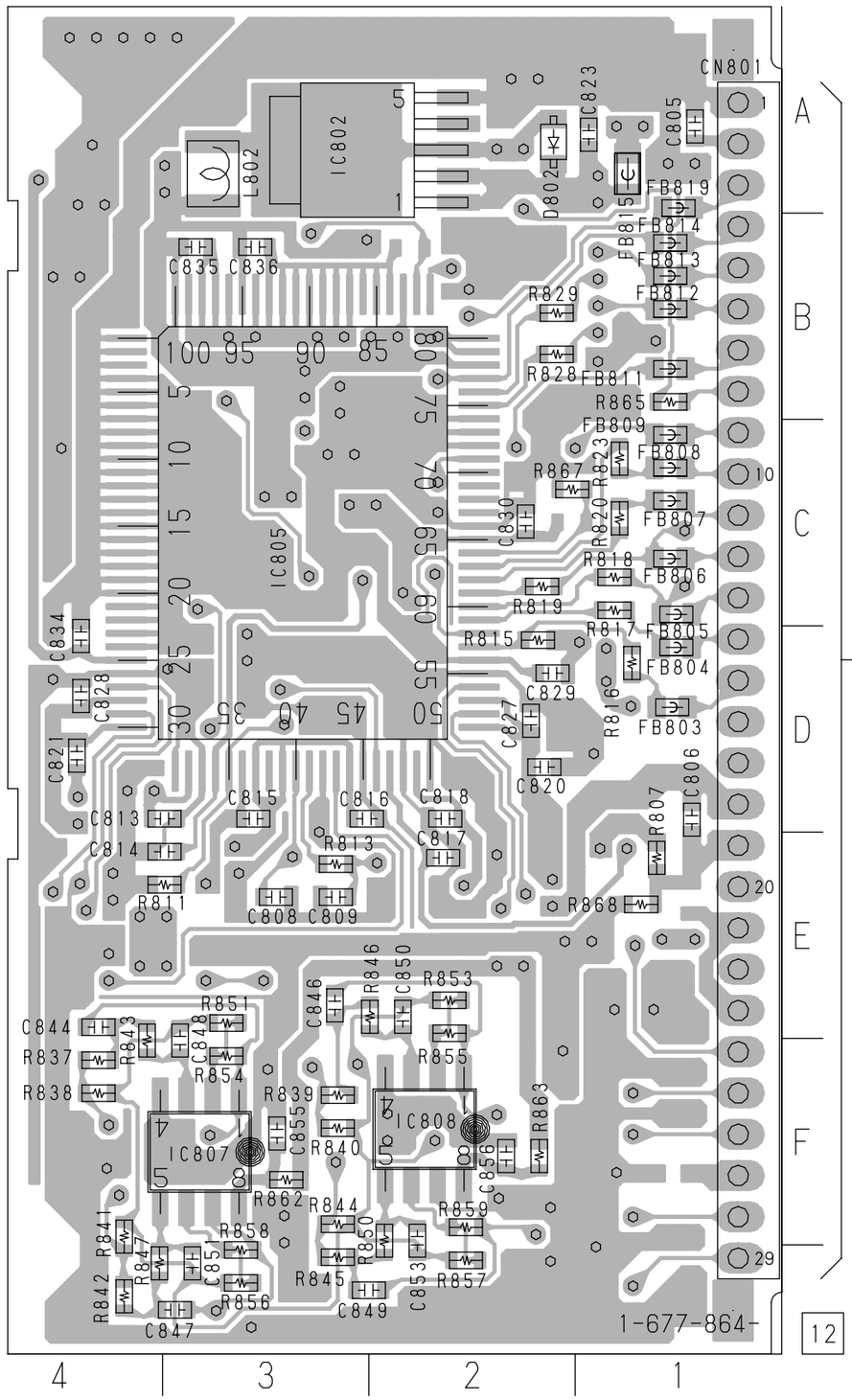
【DSO BOARD】(SIDE B)

• **Semiconductor Location**

Ref. No.	Location
D801	B-1
(D802)	A-2
D804	F-3
IC801	B-4
(IC802)	A-3
IC803	C-3
IC804	C-2
(IC805)	C-3
(IC807)	F-3
(IC808)	F-2
IC809	F-2
Q801	C-3
Q802	C-1

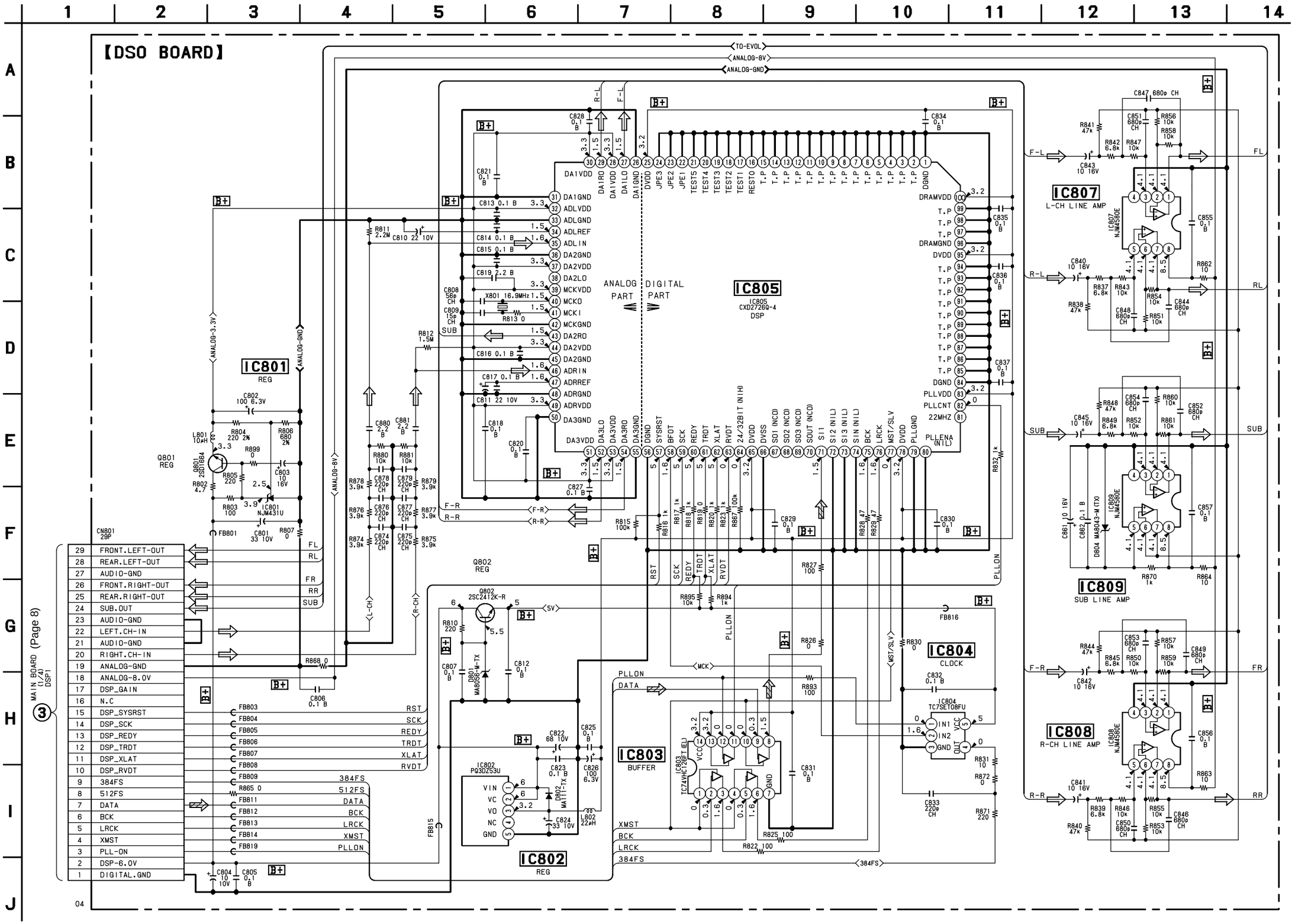
( ): SIDE B





3 MAIN BOARD DSP1 (Page 7)

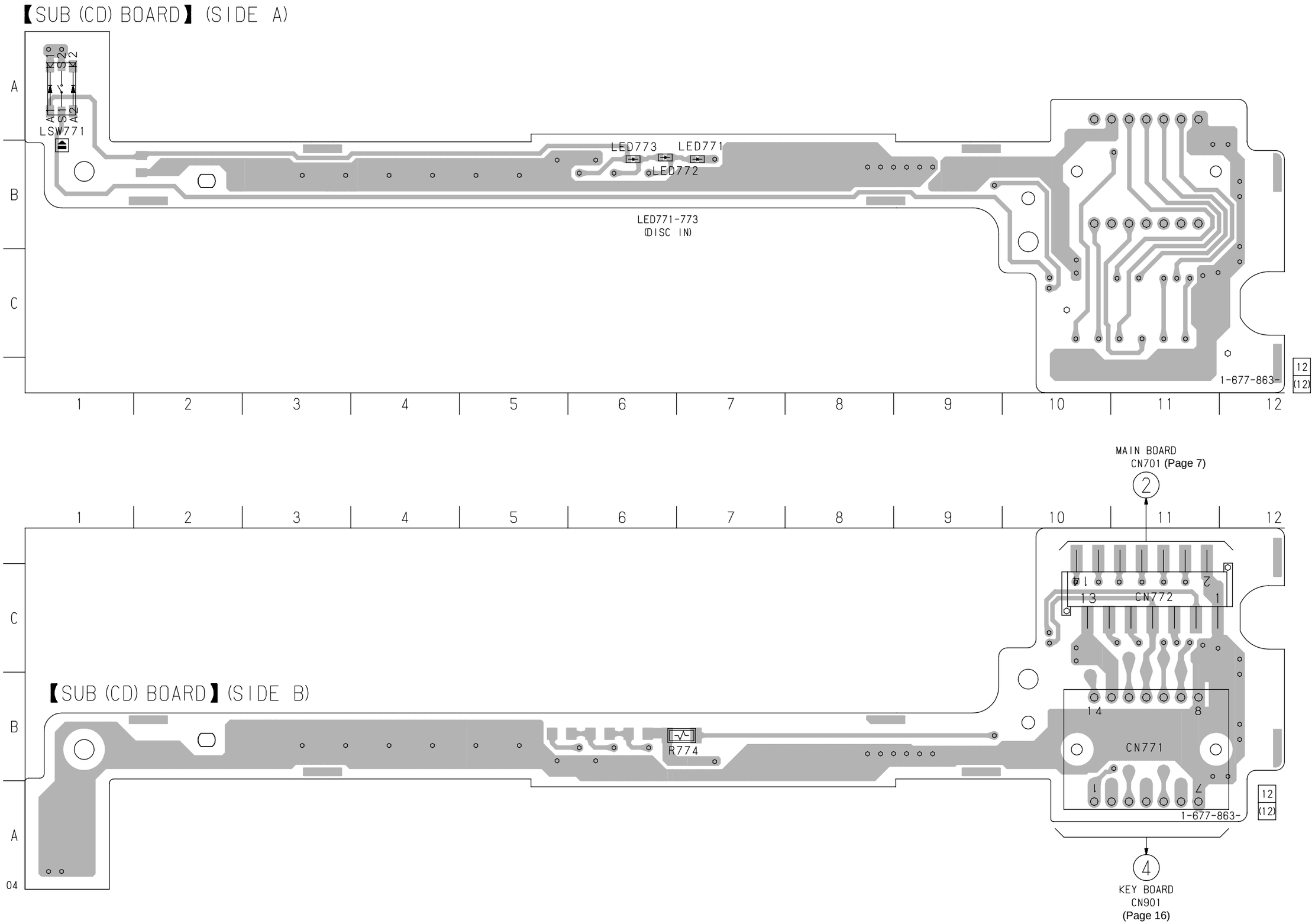
2-8. SCHEMATIC DIAGRAM — DSO SECTION —



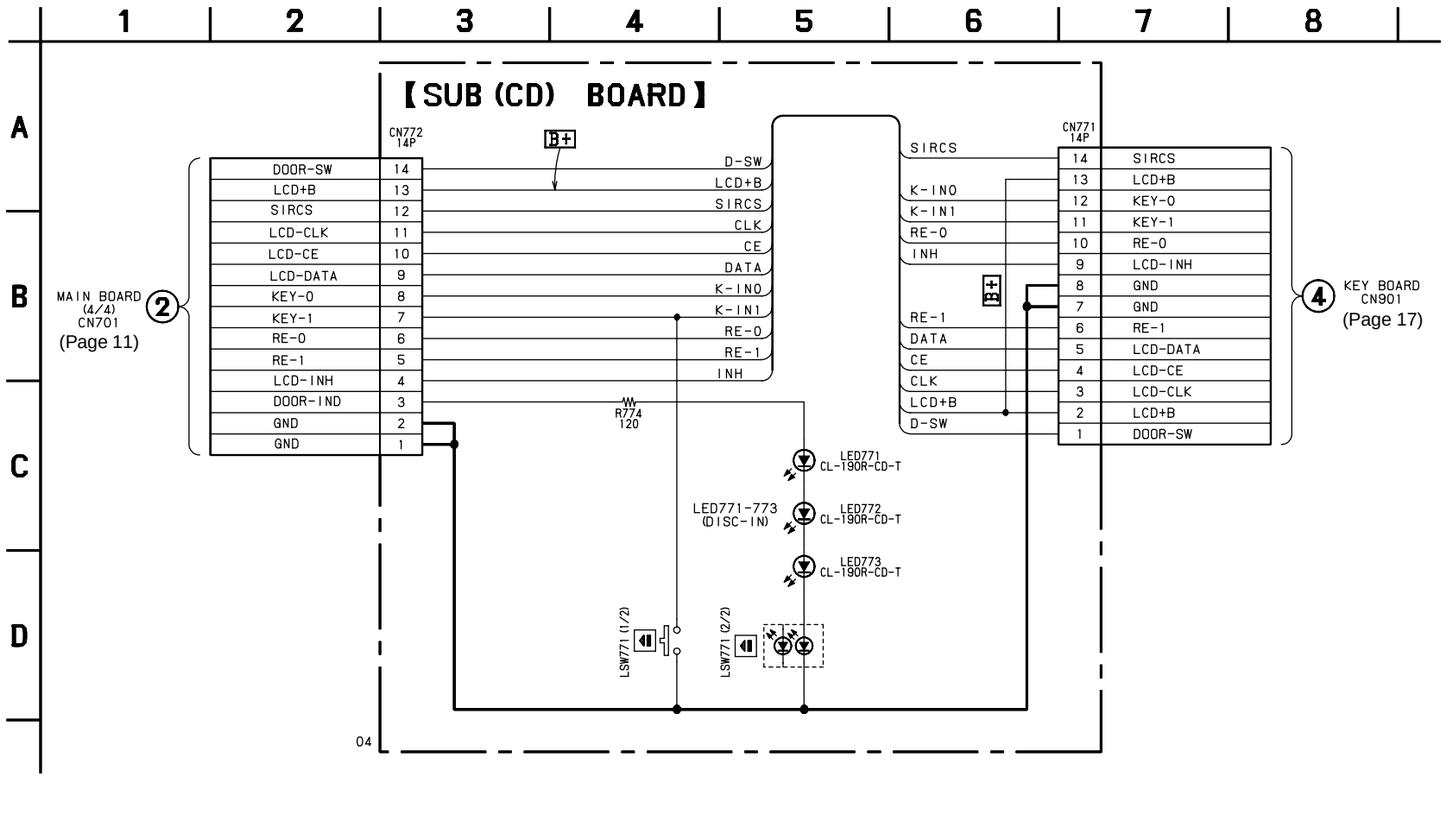
Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

2-9. PRINTED WIRING BOARD — SUB (CD) SECTION —



2-10. SCHEMATIC DIAGRAM — SUB (CD) SECTION —

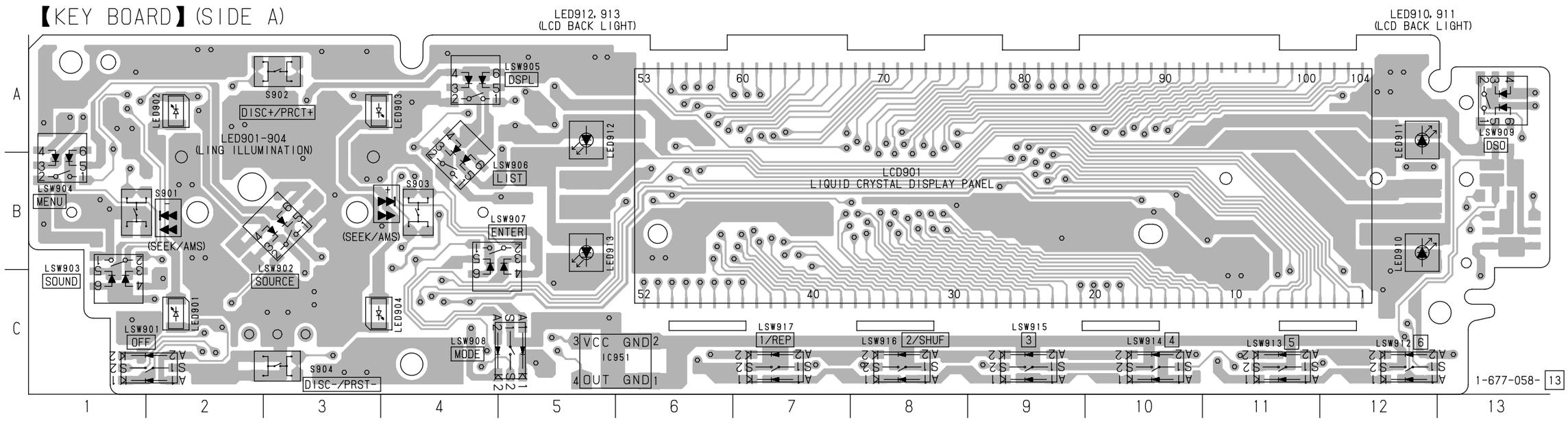


Note:

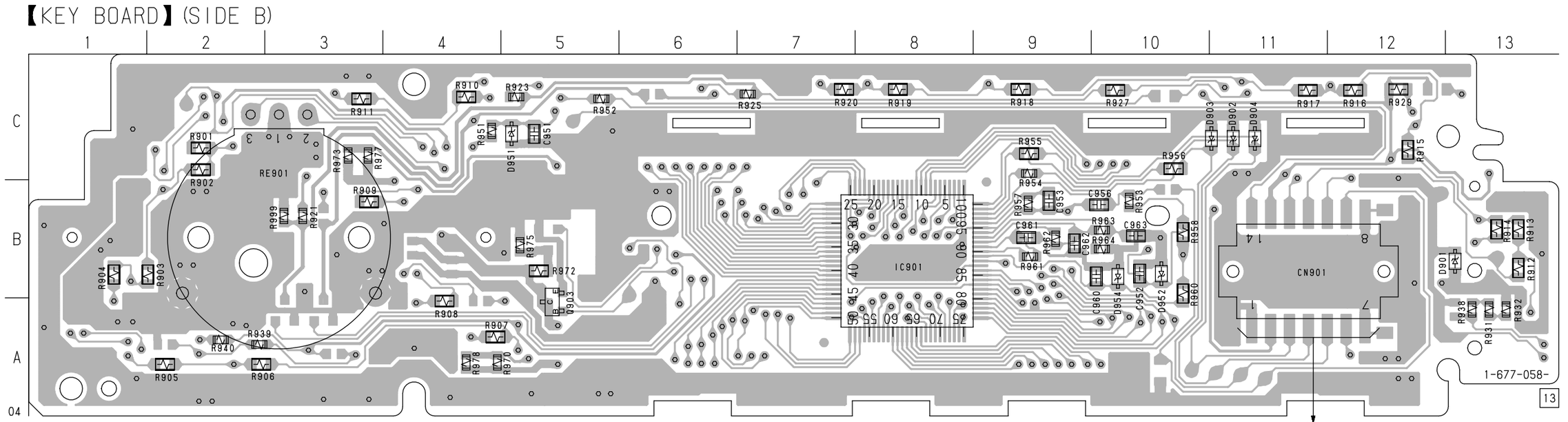
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

2-11. PRINTED WIRING BOARD — KEY SECTION —

【KEY BOARD】(SIDE A)



【KEY BOARD】(SIDE B)



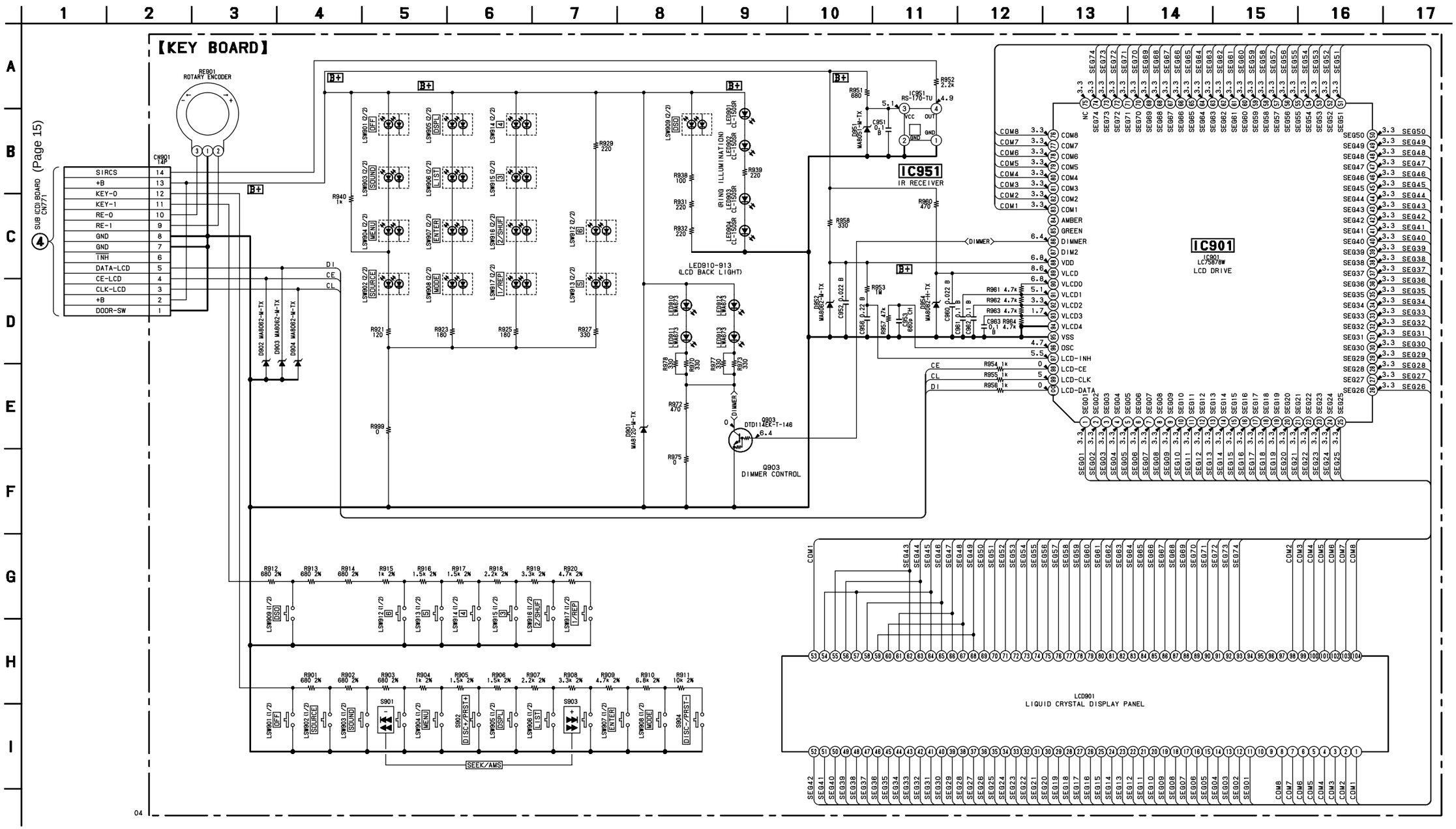
4
SUB (CD) BOARD
CN771
(Page 14)

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
(D901)	B-13	LED901	C-2
(D902)	C-11	LED902	A-2
(D903)	C-11	LED903	A-3
(D904)	C-11	LED904	C-3
(D951)	C-5	LED910	B-12
(D952)	B-10	LED911	A-12
(D954)	B-10	LED912	A-5
		LED913	B-5
(IC901)	B-8		
IC951	C-5	(Q903)	B-5

( ) : SIDE B

2-12. SCHEMATIC DIAGRAM — KEY SECTION —



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

2-13. ELECTRICAL PARTS LIST

DSO

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3294-909-A	DSO BOARD, COMPLETE (SUPPLIED WITH MAIN BOARD, COMPLETE)			
		**********			
*	3-045-138-01	CASE (DSP), SHIELD			
*	3-045-994-01	COVER (DSP), SHIELD			
		< CAPACITOR >			
C801	1-126-393-11	ELECT CHIP	33uF	20%	10V
C802	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C803	1-126-394-11	ELECT CHIP	10uF	20%	16V
C804	1-117-709-11	ELECT CHIP	10uF	20%	10V
C805	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C806	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C807	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C808	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C809	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C810	1-128-993-21	ELECT CHIP	22uF	20%	10V
C811	1-128-993-21	ELECT CHIP	22uF	20%	10V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C813	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C815	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C816	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C817	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C818	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C819	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C820	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-128-415-11	ELECT CHIP	68uF	20%	10V
C823	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C824	1-126-393-11	ELECT CHIP	33uF	20%	10V
C825	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C826	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C827	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C828	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C829	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C830	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C831	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C832	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C833	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C834	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C835	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C836	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C837	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C840	1-126-394-11	ELECT CHIP	10uF	20%	16V
C841	1-126-394-11	ELECT CHIP	10uF	20%	16V
C842	1-126-394-11	ELECT CHIP	10uF	20%	16V
C843	1-126-394-11	ELECT CHIP	10uF	20%	16V
C844	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C845	1-126-394-11	ELECT CHIP	10uF	20%	16V
C846	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C847	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C848	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C849	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C850	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C851	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C852	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C853	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C854	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C855	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C856	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C857	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C861	1-126-394-11	ELECT CHIP	10uF	20%	16V
C862	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C874	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C875	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C876	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C877	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C878	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C879	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C880	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C881	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
		< CONNECTOR >			
CN801	1-794-320-11	PIN, CONNECTOR (PC BOARD) 29P			
		< DIODE >			
D801	8-719-977-03	DIODE MA8056-M-TX			
D802	8-719-073-01	DIODE MA111-TX			
D804	8-719-421-82	DIODE MA8043-M(TX)			
		< FERRITE BEAD >			
FB801	1-414-235-22	INDUCTOR, FERRITE BEAD			
FB803	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB804	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB805	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB806	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB807	1-500-329-21	INDUCTOR, FERRITE BEAD			

DSO

Ref. No.	Part No.	Description			Remark
FB808	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB809	1-414-760-21	INDUCTOR, FERRITE BEAD			
FB811	1-414-760-21	INDUCTOR, FERRITE BEAD			
FB812	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB813	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB814	1-414-760-21	INDUCTOR, FERRITE BEAD			
FB815	1-414-235-22	INDUCTOR, FERRITE BEAD			
FB816	1-414-760-21	INDUCTOR, FERRITE BEAD			
FB819	1-414-760-21	INDUCTOR, FERRITE BEAD			
		< IC >			
IC801	8-759-710-88	IC NJM431U-TE2			
IC802	8-759-431-14	IC PQ3DZ53U			
IC803	8-759-524-05	IC TC74VHC126FT(EL)			
IC804	8-759-485-79	IC TC7SET08FU(TE85R)			
IC805	8-752-402-48	IC CXD2726Q-4			
IC807	8-759-711-82	IC NJM4580E(T1)			
IC808	8-759-711-82	IC NJM4580E(T1)			
IC809	8-759-711-82	IC NJM4580E(T1)			
		< COIL >			
L801	1-412-058-11	INDUCTOR CHIP 10uH			
L802	1-412-060-11	INDUCTOR CHIP 22uH			
		< TRANSISTOR >			
Q801	8-729-920-85	TRANSISTOR 2SD1664-T101-QR			
Q802	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R			
		< RESISTOR >			
R802	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/16W
R804	1-219-274-11	RES-CHIP	220	2%	1/16W
R805	1-216-813-11	METAL CHIP	220	5%	1/16W
R806	1-219-286-11	RES-CHIP	680	2%	1/16W
R807	1-216-864-11	METAL CHIP	0	5%	1/16W
R810	1-216-813-11	METAL CHIP	220	5%	1/16W
R811	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R812	1-216-859-11	RES-CHIP	1.5M	5%	1/16W
R813	1-216-864-11	METAL CHIP	0	5%	1/16W
R815	1-216-845-11	METAL CHIP	100K	5%	1/16W
R816	1-216-821-11	METAL CHIP	1K	5%	1/16W
R817	1-216-821-11	METAL CHIP	1K	5%	1/16W
R818	1-216-821-11	METAL CHIP	1K	5%	1/16W
R819	1-216-864-11	METAL CHIP	0	5%	1/16W
R820	1-216-821-11	METAL CHIP	1K	5%	1/16W
R822	1-216-809-11	METAL CHIP	100	5%	1/16W
R823	1-216-821-11	METAL CHIP	1K	5%	1/16W
R825	1-216-809-11	METAL CHIP	100	5%	1/16W
R826	1-216-864-11	METAL CHIP	0	5%	1/16W
R827	1-216-809-11	METAL CHIP	100	5%	1/16W
R828	1-216-805-11	METAL CHIP	47	5%	1/16W
R829	1-216-805-11	METAL CHIP	47	5%	1/16W
R830	1-216-864-11	METAL CHIP	0	5%	1/16W
R831	1-216-797-11	METAL CHIP	10	5%	1/16W
R832	1-216-821-11	METAL CHIP	1K	5%	1/16W
R837	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R838	1-216-841-11	METAL CHIP	47K	5%	1/16W
R839	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R840	1-216-841-11	METAL CHIP	47K	5%	1/16W
R841	1-216-841-11	METAL CHIP	47K	5%	1/16W
R842	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R843	1-216-833-11	RES-CHIP	10K	5%	1/16W
R844	1-216-841-11	METAL CHIP	47K	5%	1/16W
R845	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R846	1-216-833-11	RES-CHIP	10K	5%	1/16W
R847	1-216-833-11	RES-CHIP	10K	5%	1/16W
R848	1-216-841-11	METAL CHIP	47K	5%	1/16W
R849	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R850	1-216-833-11	RES-CHIP	10K	5%	1/16W
R851	1-216-833-11	RES-CHIP	10K	5%	1/16W
R852	1-216-833-11	RES-CHIP	10K	5%	1/16W
R853	1-216-833-11	RES-CHIP	10K	5%	1/16W
R854	1-216-833-11	RES-CHIP	10K	5%	1/16W
R855	1-216-833-11	RES-CHIP	10K	5%	1/16W
R856	1-216-833-11	RES-CHIP	10K	5%	1/16W
R857	1-216-833-11	RES-CHIP	10K	5%	1/16W
R858	1-216-833-11	RES-CHIP	10K	5%	1/16W
R859	1-216-833-11	RES-CHIP	10K	5%	1/16W
R860	1-216-833-11	RES-CHIP	10K	5%	1/16W
R861	1-216-833-11	RES-CHIP	10K	5%	1/16W
R862	1-216-797-11	METAL CHIP	10	5%	1/16W
R863	1-216-797-11	METAL CHIP	10	5%	1/16W
R864	1-216-797-11	METAL CHIP	10	5%	1/16W
R865	1-216-864-11	METAL CHIP	0	5%	1/16W
R867	1-216-845-11	METAL CHIP	100K	5%	1/16W
R868	1-216-864-11	METAL CHIP	0	5%	1/16W
R870	1-216-821-11	METAL CHIP	1K	5%	1/16W
R871	1-216-813-11	METAL CHIP	220	5%	1/16W
R872	1-216-864-11	METAL CHIP	0	5%	1/16W
R874	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R875	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R876	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R877	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R878	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R879	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R880	1-216-833-11	RES-CHIP	10K	5%	1/16W
R881	1-216-833-11	RES-CHIP	10K	5%	1/16W
R893	1-216-809-11	METAL CHIP	100	5%	1/16W
R894	1-216-821-11	METAL CHIP	1K	5%	1/16W
R895	1-216-833-11	RES-CHIP	10K	5%	1/16W
R899	1-216-864-11	METAL CHIP	0	5%	1/16W
		< VIBRATOR >			
X801	1-767-467-11	VIBRATOR, CRYSTAL (16.9MHz)			
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Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-694-660-11	CONDUCTIVE BOARD, CONNECTION			
*	3-040-992-02	HOLDER (LCD)			
*	3-040-993-01	PLATE (LCD), LIGHT GUIDE			
*	3-040-997-02	PLATE (LCD), GROUND			
*	3-041-371-11	SHEET (REFLECTOR)			
		< CAPACITOR >			
C951	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C952	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C953	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C956	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C960	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C961	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C962	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C963	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN901	1-794-065-21	PLUG, CONNECTOR 14P			
		< DIODE >			
D901	8-719-423-32	DIODE MA8120-M-TX			
D902	8-719-422-64	DIODE MA8062-M-TX			
D903	8-719-422-64	DIODE MA8062-M-TX			
D904	8-719-422-64	DIODE MA8062-M-TX			
D951	8-719-420-90	DIODE MA8051-M-TX			
D952	8-719-422-64	DIODE MA8062-M-TX			
D954	8-719-422-89	DIODE MA8082-H-TX			
		< IC >			
IC901	8-759-653-26	IC LC75878W			
IC951	8-749-012-25	IC RS-170-TU			
		< LIQUID CRYSTAL DISPLAY >			
LCD900	1-803-915-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED901	8-719-026-38	LED CL-150SR-CD-T			
LED902	8-719-026-38	LED CL-150SR-CD-T			
LED903	8-719-026-38	LED CL-150SR-CD-T			
LED904	8-719-026-38	LED CL-150SR-CD-T			
LED910	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED911	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED912	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
LED913	8-719-078-19	LED LWA673-R1S2 (LCD BACK LIGHT)			
		< SWITCH >			
LSW901	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)			
LSW902	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW903	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOUND)			
LSW904	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU)			
LSW905	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DSPL)			
LSW906	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (LIST)			
LSW907	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER)			
LSW908	1-771-883-11	SWITCH, TACTILE (WITH LED) (MODE)			
LSW909	1-762-737-11	SWITCH, KEY BOARD (WITH LED) (DSO)			
LSW912	1-771-883-11	SWITCH, TACTILE (WITH LED) (6)			
LSW913	1-771-883-11	SWITCH, TACTILE (WITH LED) (5)			
LSW914	1-771-883-11	SWITCH, TACTILE (WITH LED) (4)			
LSW915	1-771-883-11	SWITCH, TACTILE (WITH LED) (3)			
LSW916	1-771-883-11	SWITCH, TACTILE (WITH LED) (2/SHUF)			
LSW917	1-771-883-11	SWITCH, TACTILE (WITH LED) (1/REP)			
		< TRANSISTOR >			
Q903	8-729-904-75	TRANSISTOR DTD114EK-T-146			
		< RESISTOR >			
R901	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R902	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R903	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R904	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R905	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R906	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R907	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R908	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R909	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R910	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R911	1-208-806-11	RES-CHIP	10K	2%	1/10W
R912	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R913	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R914	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R915	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R916	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R917	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R918	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R919	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R920	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R921	1-216-810-11	METAL CHIP	120	5%	1/16W
R923	1-216-812-11	METAL CHIP	180	5%	1/16W
R925	1-216-812-11	METAL CHIP	180	5%	1/16W
R927	1-216-037-00	METAL CHIP	330	5%	1/10W
R929	1-216-033-00	METAL CHIP	220	5%	1/10W
R931	1-216-813-11	METAL CHIP	220	5%	1/16W
R932	1-216-813-11	METAL CHIP	220	5%	1/16W
R938	1-216-809-11	METAL CHIP	100	5%	1/16W
R939	1-216-813-11	METAL CHIP	220	5%	1/16W
R940	1-216-821-11	METAL CHIP	1K	5%	1/16W
R951	1-216-819-11	METAL CHIP	680	5%	1/16W
R952	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R953	1-216-857-11	METAL CHIP	1M	5%	1/16W
R954	1-216-821-11	METAL CHIP	1K	5%	1/16W
R955	1-216-049-11	RES-CHIP	1K	5%	1/10W
R956	1-216-049-11	RES-CHIP	1K	5%	1/10W

KEY MAIN

Ref. No.	Part No.	Description			Remark
R957	1-216-841-11	METAL CHIP	47K	5%	1/16W
R958	1-216-037-00	METAL CHIP	330	5%	1/10W
R960	1-216-041-00	METAL CHIP	470	5%	1/10W
R961	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R962	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R963	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R964	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R970	1-216-815-11	METAL CHIP	330	5%	1/16W
R972	1-216-041-00	METAL CHIP	470	5%	1/10W
R973	1-216-815-11	METAL CHIP	330	5%	1/16W
R975	1-216-864-11	METAL CHIP	0	5%	1/16W
R977	1-216-815-11	METAL CHIP	330	5%	1/16W
R978	1-216-815-11	METAL CHIP	330	5%	1/16W
R999	1-216-864-11	METAL CHIP	0	5%	1/16W
		< ROTARY ENCODER >			
RE901	1-475-014-11	ENCODER, ROTARY			
		< SWITCH >			
S901	1-771-884-11	SWITCH, TACTILE (WITH LED) (SEEK/AMS – ⏮ ◀◀)			
S902	1-771-884-11	SWITCH, TACTILE (WITH LED) (DISC +/PRST +)			
S903	1-771-884-11	SWITCH, TACTILE (WITH LED) (SEEK/AMS + ▶▶⏭ ▶▶)			
S904	1-771-884-11	SWITCH, TACTILE (WITH LED) (DISC –/PRST –)			
**********					
*	A-3294-903-A	MAIN BOARD, COMPLETE (INCLUDING DSO BOARD, COMPLETE)			
		**********			
*	3-040-996-32	HEAT SINK (6P)			
*	3-040-998-01	BRACKET (IC)			
*	3-041-261-01	BRACKET (TR)			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< BUZZER >			
BZ101	1-504-920-11	BUZZER			
		< CAPACITOR >			
C101	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C104	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C105	1-131-661-21	ELECT CHIP	100uF	20%	10V
C106	1-126-176-11	ELECT	220uF	20%	10V
C107	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-117-681-11	ELECT CHIP	100uF	20%	16V
C111	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C112	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C113	1-117-681-11	ELECT CHIP	100uF	20%	16V
C114	1-124-584-00	ELECT	100uF	20%	10V
C115	1-163-031-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remark
C116	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C117	1-124-584-00	ELECT	100uF	20%	10V
C118	1-126-926-11	ELECT	1000uF	20%	10V
C119	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C120	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C121	1-104-942-11	ELECT	1uF	20%	50V
C122	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C123	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C124	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C126	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C128	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C129	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C130	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C214	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C215	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C219	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C220	1-126-157-11	ELECT	10uF	20%	16V
C223	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C224	1-126-157-11	ELECT	10uF	20%	16V
C225	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C226	1-124-589-11	ELECT	47uF	20%	16V
C227	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C230	1-124-589-11	ELECT	47uF	20%	16V
C231	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C234	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C237	1-126-157-11	ELECT	10uF	20%	16V
C301	1-164-346-11	CERAMIC CHIP	1uF		16V
C302	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C303	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C304	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C305	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C306	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C309	1-164-346-11	CERAMIC CHIP	1uF		16V
C311	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C312	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C313	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C314	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C315	1-124-589-11	ELECT	47uF	20%	16V
C316	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C317	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C318	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C319	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C320	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C321	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C322	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C323	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C324	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C325	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C326	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C327	1-124-589-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description			Remark
C328	1-124-589-11	ELECT	47uF	20%	16V
C329	1-124-589-11	ELECT	47uF	20%	16V
C330	1-124-584-00	ELECT	100uF	20%	10V
C331	1-124-584-00	ELECT	100uF	20%	10V
C332	1-124-584-00	ELECT	100uF	20%	10V
C333	1-124-584-00	ELECT	100uF	20%	10V
C334	1-124-584-00	ELECT	100uF	20%	10V
C335	1-124-584-00	ELECT	100uF	20%	10V
C336	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C337	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C338	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C339	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C340	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C341	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C342	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C343	1-126-157-11	ELECT	10uF	20%	16V
C344	1-126-157-11	ELECT	10uF	20%	16V
C345	1-126-157-11	ELECT	10uF	20%	16V
C346	1-126-157-11	ELECT	10uF	20%	16V
C347	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C348	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C349	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C350	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C351	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C352	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C353	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C354	1-104-942-11	ELECT	1uF	20%	50V
C355	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C356	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C357	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C358	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C359	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C360	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C361	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C362	1-124-589-11	ELECT	47uF	20%	16V
C363	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C364	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C365	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C366	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C367	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C368	1-104-942-11	ELECT	1uF	20%	50V
C369	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C370	1-104-942-11	ELECT	1uF	20%	50V
C371	1-135-473-21	ELECT	3300uF	20%	16V
C372	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C373	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C374	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C375	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C376	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C377	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C378	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C379	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C380	1-127-573-11	CERAMIC CHIP	1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C381	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C382	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C383	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C384	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C385	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C386	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C387	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C399	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C401	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C402	1-124-589-11	ELECT	47uF	20%	16V
C404	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C406	1-131-661-21	ELECT CHIP	100uF	20%	10V
C407	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C408	1-128-057-11	ELECT	330uF	20%	6.3V
C501	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C502	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C506	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C507	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C508	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C509	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C510	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C513	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C514	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C515	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C517	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C518	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C601	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C602	1-124-229-00	ELECT	33uF	20%	10V
C603	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C604	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C605	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C606	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C607	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-104-942-11	ELECT	1uF	20%	50V
C703	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C704	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C705	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C706	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C707	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C708	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C709	1-126-154-11	ELECT	47uF	20%	6.3V
C710	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C711	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C712	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C713	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C714	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C715	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C751	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C752	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C753	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C755	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C756	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C757	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C759	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C901	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C902	1-104-942-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
CN101	1-774-701-11	PIN, CONNECTOR 16P			
* CN301	1-564-506-11	PLUG, CONNECTOR 3P			
CN401	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
CN601	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN701	1-770-408-11	CONNECTOR, BOARD TO BOARD 14P			
		< JACK >			
CN102	1-764-808-21	JACK (ANTENNA)			
CN302	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT REAR/FRONT)			
		< DIODE >			
D101	8-719-420-51	DIODE	MA729-TX		
D102	8-719-422-29	DIODE	MA8047-L-TX		
D103	8-719-060-81	DIODE	MA735-TX		
D104	8-719-801-78	DIODE	MA152WK-TX		
D105	8-719-420-14	DIODE	MA8082-M(TX)		
D106	8-719-060-81	DIODE	MA735-TX		
D107	8-719-422-62	DIODE	MA8062-L-TX		
D108	8-719-422-86	DIODE	MA8082-L-TX		
D109	8-719-977-12	DIODE	MA8068-M-TX		
D201	8-719-422-41	DIODE	MA8051-L-TX		
D202	8-719-422-16	DIODE	MA8039-L-TX		
D205	8-719-073-01	DIODE	MA111-TX		
D301	8-719-422-64	DIODE	MA8062-M-TX		
D302	8-719-073-01	DIODE	MA111-TX		
D352	8-719-422-89	DIODE	MA8082-H-TX		
D353	8-719-801-78	DIODE	MA152WK-TX		
D354	8-719-801-78	DIODE	MA152WK-TX		
D355	8-719-200-82	DIODE	11ES2-TB5		
D356	8-719-200-82	DIODE	11ES2-TB5		
D357	8-719-200-82	DIODE	11ES2-TB5		
D358	8-719-200-82	DIODE	11ES2-TB5		
D359	8-719-200-82	DIODE	11ES2-TB5		
D360	8-719-200-82	DIODE	11ES2-TB5		
D361	8-719-200-82	DIODE	11ES2-TB5		
D362	8-719-200-82	DIODE	11ES2-TB5		
D363	8-719-049-38	DIODE	1N5404TU		
D401	8-719-073-01	DIODE	MA111-TX		
D502	8-719-073-01	DIODE	MA111-TX		
D601	8-719-073-01	DIODE	MA111-TX		
D602	8-719-073-01	DIODE	MA111-TX		

Ref. No.	Part No.	Description		Remark
D603	8-719-057-80	DIODE	MA8180-M-TX	
D604	8-719-057-80	DIODE	MA8180-M-TX	
D605	8-719-073-01	DIODE	MA111-TX	
D606	8-719-057-80	DIODE	MA8180-M-TX	
D607	8-719-977-12	DIODE	MA8068-M-TX	
D608	8-719-420-51	DIODE	MA729-TX	
D609	8-719-057-80	DIODE	MA8180-M-TX	
D610	8-719-073-01	DIODE	MA111-TX	
D611	8-719-073-01	DIODE	MA111-TX	
D612	8-719-977-12	DIODE	MA8068-M-TX	
D613	8-719-977-12	DIODE	MA8068-M-TX	
D614	8-719-073-01	DIODE	MA111-TX	
D701	8-719-400-20	DIODE	MA152WA-TX	
D702	8-719-073-01	DIODE	MA111-TX	
D703	8-719-801-78	DIODE	MA152WK-TX	
D751	8-719-423-32	DIODE	MA8120-M-TX	
D752	8-719-422-64	DIODE	MA8062-M-TX	
D753	8-719-422-64	DIODE	MA8062-M-TX	
D754	8-719-423-32	DIODE	MA8120-M-TX	
D755	8-719-423-32	DIODE	MA8120-M-TX	
D756	8-719-422-64	DIODE	MA8062-M-TX	
D757	8-719-422-64	DIODE	MA8062-M-TX	
D758	8-719-423-32	DIODE	MA8120-M-TX	
D759	8-719-422-64	DIODE	MA8062-M-TX	
D760	8-719-422-64	DIODE	MA8062-M-TX	
D761	8-719-423-32	DIODE	MA8120-M-TX	
D762	8-719-423-32	DIODE	MA8120-M-TX	
		< IC >		
IC301	8-759-653-27	IC	TDA7402TR	
IC302	8-759-521-35	IC	TL5001CDR	
IC303	8-759-593-97	IC	NJM2160AM-TE2	
IC304	8-759-593-97	IC	NJM2160AM-TE2	
IC305	8-759-593-97	IC	NJM2160AM-TE2	
IC351	8-759-660-96	IC	TDA7560	
IC502	8-759-686-86	IC	MB90574BPMT-G-290-BND	
IC503	8-759-581-75	IC	XC61AN4102MR	
IC504	8-759-495-76	IC	RN5VD33AA-TL	
IC601	8-759-449-89	IC	BA8270F-E2	
IC701	8-759-686-87	IC	HD6432355A25F	
IC702	8-759-277-63	IC	TC7W14FU(TE12R)	
		< JACK >		
J651	1-566-822-41	JACK (REMOTE IN)		
		< COIL >		
L101	1-469-673-21	INDUCTOR	100uH	
L102	1-469-674-21	INDUCTOR	220uH	
L103	1-469-675-21	INDUCTOR	100uH	
L104	1-414-185-51	INDUCTOR	22uH	
L201	1-414-185-51	INDUCTOR	22uH	
L301	1-414-179-51	INDUCTOR	2.2uH	

Ref. No.	Part No.	Description		Remark
L351	1-419-476-11	COIL, CHOKE	250uH	
L401	1-414-857-51	INDUCTOR	100uH	
L402	1-469-673-21	INDUCTOR	100uH	
L701	1-414-856-51	INDUCTOR	10uH	
		< TRANSISTOR >		
Q101	8-729-421-19	TRANSISTOR	UN2213-TX	
Q102	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q103	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R	
Q104	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q105	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q106	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q107	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q108	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q109	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q110	8-729-040-17	TRANSISTOR	2SD2164-K	
Q111	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q112	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q113	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q201	8-729-920-85	TRANSISTOR	2SD1664-T101-QR	
Q202	8-729-920-21	TRANSISTOR	DTC314TK-T-146	
Q203	8-729-106-60	TRANSISTOR	2SB1132-T101-QR	
Q204	8-729-421-22	TRANSISTOR	UN2211-TX	
Q205	8-729-920-21	TRANSISTOR	DTC314TK-T-146	
Q206	8-729-424-08	TRANSISTOR	UN2111-TX	
Q207	8-729-421-22	TRANSISTOR	UN2211-TX	
Q209	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q351	8-729-421-22	TRANSISTOR	UN2211-TX	
Q352	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q353	8-729-424-59	TRANSISTOR	UN2212-TX	
Q354	8-729-424-18	TRANSISTOR	UN2113-TX	
Q355	8-729-424-59	TRANSISTOR	UN2212-TX	
Q356	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q357	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q358	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q359	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q360	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q361	8-729-021-95	TRANSISTOR	RN1441-A(TE85L)	
Q363	8-729-421-22	TRANSISTOR	UN2211-TX	
Q364	8-729-421-22	TRANSISTOR	UN2211-TX	
Q365	8-729-821-62	TRANSISTOR	2SB1203S-TL	
Q366	8-729-821-62	TRANSISTOR	2SB1203S-TL	
Q402	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q403	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q406	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q407	8-729-421-22	TRANSISTOR	UN2211-TX	
Q601	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q602	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q603	8-729-424-18	TRANSISTOR	UN2113-TX	
Q604	8-729-421-22	TRANSISTOR	UN2211-TX	
Q605	8-729-424-18	TRANSISTOR	UN2113-TX	
Q701	8-729-424-08	TRANSISTOR	UN2111-TX	
Q702	8-729-424-08	TRANSISTOR	UN2111-TX	
Q703	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q704	8-729-019-03	TRANSISTOR	2SB1202FA-T-TL	
Q705	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q901	8-729-106-60	TRANSISTOR	2SB1132-T101-QR	
Q902	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
Q903	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R	
		< RESISTOR >		
R101	1-216-839-11	METAL CHIP	33K 5% 1/16W	
R102	1-218-879-11	METAL CHIP	22K 0.5% 1/16W	
R103	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R104	1-218-903-11	METAL CHIP	220K 0.5% 1/16W	
R105	1-218-866-11	RES-CHIP	6.2K 5% 1/16W	
R106	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R107	1-218-295-11	RES-CHIP	43K 5% 1/16W	
R108	1-216-849-11	METAL CHIP	220K 5% 1/16W	
R109	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R110	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R111	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R112	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	
R113	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R114	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R115	1-216-041-00	METAL CHIP	470 5% 1/10W	
R116	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R117	1-216-037-00	METAL CHIP	330 5% 1/10W	
R118	1-216-813-11	METAL CHIP	220 5% 1/16W	
R119	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R120	1-216-817-11	METAL CHIP	470 5% 1/16W	
R121	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R122	1-216-833-11	RES-CHIP	10K 5% 1/16W	
R123	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R124	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R125	1-216-308-00	METAL CHIP	4.7 5% 1/10W	
R126	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R127	1-216-833-11	RES-CHIP	10K 5% 1/16W	
R128	1-216-839-11	METAL CHIP	33K 5% 1/16W	
R129	1-216-833-11	RES-CHIP	10K 5% 1/16W	
R130	1-216-077-11	RES-CHIP	15K 5% 1/10W	
R131	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R132	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R133	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R134	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R136	1-216-833-11	RES-CHIP	10K 5% 1/16W	
R137	1-216-833-11	RES-CHIP	10K 5% 1/16W	
R138	1-216-295-00	SHORT	0	
R139	1-216-001-00	METAL CHIP	10 5% 1/10W	
R140	1-216-041-00	METAL CHIP	470 5% 1/10W	
R141	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R142	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R205	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R207	1-216-001-00	METAL CHIP	10 5% 1/10W	
R209	1-216-025-11	RES-CHIP	100 5% 1/10W	
R210	1-216-025-11	RES-CHIP	100 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R213	1-216-864-11	METAL CHIP	0	5%	1/16W
R214	1-216-001-00	METAL CHIP	10	5%	1/10W
R215	1-216-841-11	METAL CHIP	47K	5%	1/16W
R216	1-216-817-11	METAL CHIP	470	5%	1/16W
R217	1-216-839-11	METAL CHIP	33K	5%	1/16W
R218	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R219	1-216-833-11	RES-CHIP	10K	5%	1/16W
R220	1-216-819-11	METAL CHIP	680	5%	1/16W
R225	1-216-815-11	METAL CHIP	330	5%	1/16W
R229	1-216-797-11	METAL CHIP	10	5%	1/16W
R233	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R234	1-216-295-00	SHORT	0		
R235	1-216-295-00	SHORT	0		
R236	1-216-295-00	SHORT	0		
R301	1-216-864-11	METAL CHIP	0	5%	1/16W
R302	1-216-025-11	RES-CHIP	100	5%	1/10W
R305	1-216-817-11	METAL CHIP	470	5%	1/16W
R306	1-216-841-11	METAL CHIP	47K	5%	1/16W
R307	1-216-809-11	METAL CHIP	100	5%	1/16W
R310	1-216-809-11	METAL CHIP	100	5%	1/16W
R311	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-809-11	METAL CHIP	100	5%	1/16W
R314	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R317	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R318	1-216-081-00	METAL CHIP	22K	5%	1/10W
R319	1-216-081-00	METAL CHIP	22K	5%	1/10W
R320	1-216-081-00	METAL CHIP	22K	5%	1/10W
R321	1-216-081-00	METAL CHIP	22K	5%	1/10W
R322	1-216-081-00	METAL CHIP	22K	5%	1/10W
R323	1-216-081-00	METAL CHIP	22K	5%	1/10W
R324	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R325	1-216-085-00	METAL CHIP	33K	5%	1/10W
R326	1-216-085-00	METAL CHIP	33K	5%	1/10W
R327	1-216-085-00	METAL CHIP	33K	5%	1/10W
R328	1-216-085-00	METAL CHIP	33K	5%	1/10W
R329	1-216-085-00	METAL CHIP	33K	5%	1/10W
R330	1-216-085-00	METAL CHIP	33K	5%	1/10W
R337	1-216-089-11	RES-CHIP	47K	5%	1/10W
R338	1-216-833-11	RES-CHIP	10K	5%	1/16W
R339	1-216-089-11	RES-CHIP	47K	5%	1/10W
R340	1-216-073-00	METAL CHIP	10K	5%	1/10W
R341	1-216-864-11	METAL CHIP	0	5%	1/16W
R343	1-216-813-11	METAL CHIP	220	5%	1/16W
R344	1-216-813-11	METAL CHIP	220	5%	1/16W
R345	1-216-813-11	METAL CHIP	220	5%	1/16W
R346	1-216-813-11	METAL CHIP	220	5%	1/16W
R347	1-216-813-11	METAL CHIP	220	5%	1/16W
R348	1-216-813-11	METAL CHIP	220	5%	1/16W
R349	1-216-864-11	METAL CHIP	0	5%	1/16W
R350	1-216-073-00	METAL CHIP	10K	5%	1/10W
R351	1-216-837-11	METAL CHIP	22K	5%	1/16W
R352	1-216-837-11	METAL CHIP	22K	5%	1/16W
R353	1-216-837-11	METAL CHIP	22K	5%	1/16W
R354	1-216-837-11	METAL CHIP	22K	5%	1/16W
R355	1-216-081-00	METAL CHIP	22K	5%	1/10W
R356	1-216-081-00	METAL CHIP	22K	5%	1/10W
R357	1-216-841-11	METAL CHIP	47K	5%	1/16W
R358	1-216-841-11	METAL CHIP	47K	5%	1/16W
R359	1-216-821-11	METAL CHIP	1K	5%	1/16W
R360	1-216-864-11	METAL CHIP	0	5%	1/16W
R361	1-216-821-11	METAL CHIP	1K	5%	1/16W
R363	1-216-809-11	METAL CHIP	100	5%	1/16W
R364	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R365	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R366	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R367	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R368	1-216-222-00	RES-CHIP	10K	5%	1/8W
R369	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R370	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R371	1-216-833-11	RES-CHIP	10K	5%	1/16W
R372	1-216-833-11	RES-CHIP	10K	5%	1/16W
R373	1-216-222-00	RES-CHIP	10K	5%	1/8W
R374	1-216-222-00	RES-CHIP	10K	5%	1/8W
R375	1-216-864-11	METAL CHIP	0	5%	1/16W
R376	1-216-001-00	METAL CHIP	10	5%	1/10W
R377	1-216-001-00	METAL CHIP	10	5%	1/10W
R378	1-216-001-00	METAL CHIP	10	5%	1/10W
R379	1-216-001-00	METAL CHIP	10	5%	1/10W
R380	1-216-001-00	METAL CHIP	10	5%	1/10W
R381	1-216-001-00	METAL CHIP	10	5%	1/10W
R382	1-216-041-00	METAL CHIP	470	5%	1/10W
R383	1-216-041-00	METAL CHIP	470	5%	1/10W
R384	1-216-041-00	METAL CHIP	470	5%	1/10W
R385	1-216-041-00	METAL CHIP	470	5%	1/10W
R386	1-216-041-00	METAL CHIP	470	5%	1/10W
R387	1-216-817-11	METAL CHIP	470	5%	1/16W
R388	1-216-817-11	METAL CHIP	470	5%	1/16W
R389	1-216-817-11	METAL CHIP	470	5%	1/16W
R390	1-216-864-11	METAL CHIP	0	5%	1/16W
R391	1-216-295-00	SHORT	0		
R392	1-216-864-11	METAL CHIP	0	5%	1/16W
R393	1-216-864-11	METAL CHIP	0	5%	1/16W
R398	1-216-041-00	METAL CHIP	470	5%	1/10W
R407	1-216-041-00	METAL CHIP	470	5%	1/10W
R410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R411	1-216-049-11	RES-CHIP	1K	5%	1/10W
R413	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R414	1-216-049-11	RES-CHIP	1K	5%	1/10W
R415	1-216-049-11	RES-CHIP	1K	5%	1/10W
R416	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R417	1-216-049-11	RES-CHIP	1K	5%	1/10W
R422	1-216-864-11	METAL CHIP	0	5%	1/16W
R501	1-216-081-00	METAL CHIP	22K	5%	1/10W
R502	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			Remark
R504	1-216-025-11	RES-CHIP	100	5%	1/10W
R506	1-216-049-11	RES-CHIP	1K	5%	1/10W
R507	1-216-049-11	RES-CHIP	1K	5%	1/10W
R508	1-216-049-11	RES-CHIP	1K	5%	1/10W
R509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R511	1-216-089-11	RES-CHIP	47K	5%	1/10W
R512	1-216-821-11	METAL CHIP	1K	5%	1/16W
R513	1-216-049-11	RES-CHIP	1K	5%	1/10W
R515	1-216-864-11	METAL CHIP	0	5%	1/16W
R516	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-049-11	RES-CHIP	1K	5%	1/10W
R518	1-216-833-11	RES-CHIP	10K	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R520	1-216-049-11	RES-CHIP	1K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W
R522	1-216-833-11	RES-CHIP	10K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-821-11	METAL CHIP	1K	5%	1/16W
R526	1-216-821-11	METAL CHIP	1K	5%	1/16W
R527	1-216-815-11	METAL CHIP	330	5%	1/16W
R528	1-216-821-11	METAL CHIP	1K	5%	1/16W
R529	1-216-049-11	RES-CHIP	1K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/16W
R531	1-216-821-11	METAL CHIP	1K	5%	1/16W
R532	1-216-821-11	METAL CHIP	1K	5%	1/16W
R533	1-216-809-11	METAL CHIP	100	5%	1/16W
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-821-11	METAL CHIP	1K	5%	1/16W
R536	1-216-821-11	METAL CHIP	1K	5%	1/16W
R537	1-216-845-11	METAL CHIP	100K	5%	1/16W
R538	1-216-049-11	RES-CHIP	1K	5%	1/10W
R540	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R542	1-216-833-11	RES-CHIP	10K	5%	1/16W
R543	1-216-097-11	RES-CHIP	100K	5%	1/10W
R544	1-216-845-11	METAL CHIP	100K	5%	1/16W
R545	1-216-081-00	METAL CHIP	22K	5%	1/10W
R547	1-216-089-11	RES-CHIP	47K	5%	1/10W
R548	1-216-845-11	METAL CHIP	100K	5%	1/16W
R549	1-216-049-11	RES-CHIP	1K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/16W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R601	1-216-089-11	RES-CHIP	47K	5%	1/10W
R602	1-216-845-11	METAL CHIP	100K	5%	1/16W
R603	1-216-025-11	RES-CHIP	100	5%	1/10W
R604	1-216-295-00	SHORT	0		
R605	1-216-025-11	RES-CHIP	100	5%	1/10W
R606	1-216-097-11	RES-CHIP	100K	5%	1/10W
R607	1-216-845-11	METAL CHIP	100K	5%	1/16W
R608	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R609	1-216-833-11	RES-CHIP	10K	5%	1/16W
R610	1-216-025-11	RES-CHIP	100	5%	1/10W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-216-089-11	RES-CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R614	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R615	1-216-073-00	METAL CHIP	10K	5%	1/10W
R616	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R617	1-216-025-11	RES-CHIP	100	5%	1/10W
R618	1-216-025-11	RES-CHIP	100	5%	1/10W
R701	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R702	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R703	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R704	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R705	1-216-833-11	RES-CHIP	10K	5%	1/16W
R706	1-216-041-00	METAL CHIP	470	5%	1/10W
R708	1-216-821-11	METAL CHIP	1K	5%	1/16W
R709	1-216-821-11	METAL CHIP	1K	5%	1/16W
R710	1-216-821-11	METAL CHIP	1K	5%	1/16W
R711	1-216-821-11	METAL CHIP	1K	5%	1/16W
R712	1-216-809-11	METAL CHIP	100	5%	1/16W
R713	1-216-295-00	SHORT	0		
R714	1-216-049-11	RES-CHIP	1K	5%	1/10W
R715	1-216-864-11	METAL CHIP	0	5%	1/16W
R716	1-216-845-11	METAL CHIP	100K	5%	1/16W
R717	1-216-809-11	METAL CHIP	100	5%	1/16W
R718	1-216-025-11	RES-CHIP	100	5%	1/10W
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W
R720	1-216-049-11	RES-CHIP	1K	5%	1/10W
R721	1-216-025-11	RES-CHIP	100	5%	1/10W
R722	1-216-845-11	METAL CHIP	100K	5%	1/16W
R723	1-216-025-11	RES-CHIP	100	5%	1/10W
R724	1-216-809-11	METAL CHIP	100	5%	1/16W
R725	1-216-845-11	METAL CHIP	100K	5%	1/16W
R726	1-216-821-11	METAL CHIP	1K	5%	1/16W
R727	1-216-809-11	METAL CHIP	100	5%	1/16W
R728	1-216-809-11	METAL CHIP	100	5%	1/16W
R729	1-216-821-11	METAL CHIP	1K	5%	1/16W
R731	1-216-049-11	RES-CHIP	1K	5%	1/10W
R732	1-216-819-11	METAL CHIP	680	5%	1/16W
R733	1-216-845-11	METAL CHIP	100K	5%	1/16W
R734	1-216-845-11	METAL CHIP	100K	5%	1/16W
R735	1-216-864-11	METAL CHIP	0	5%	1/16W
R736	1-216-025-11	RES-CHIP	100	5%	1/10W
R737	1-216-025-11	RES-CHIP	100	5%	1/10W
R738	1-216-025-11	RES-CHIP	100	5%	1/10W
R739	1-216-845-11	METAL CHIP	100K	5%	1/16W
R740	1-216-845-11	METAL CHIP	100K	5%	1/16W
R741	1-216-845-11	METAL CHIP	100K	5%	1/16W
R742	1-216-821-11	METAL CHIP	1K	5%	1/16W
R743	1-216-864-11	METAL CHIP	0	5%	1/16W
R901	1-216-817-11	METAL CHIP	470	5%	1/16W
R902	1-216-821-11	METAL CHIP	1K	5%	1/16W
R903	1-216-821-11	METAL CHIP	1K	5%	1/16W
R904	1-216-833-11	RES-CHIP	10K	5%	1/16W
R905	1-216-821-11	METAL CHIP	1K	5%	1/16W

MAIN **SUB (CD)**

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S101	1-692-431-21	SWITCH, TACTILE (RESET)	
S102	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DET)	
		< THERMISTOR (POSITIVE) >	
TH101	1-801-792-21	THERMISTOR, POSITIVE	
TH102	1-810-940-11	THERMISTOR, POSITIVE	
TH103	1-810-940-11	THERMISTOR, POSITIVE	
		< TUNER UNIT >	
TUX201	A-3220-738-A	TUNER UNIT (TUX-020)	
		< VIBRATOR >	
X103	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)	
X104	1-781-844-21	VIBRATOR, CRYSTAL (3.68MHz)	
X105	1-781-822-21	VIBRATOR, CERAMIC (18.432MHz)	
**********			
*	1-677-863-12	SUB (CD) BOARD **********	
*	3-039-443-11	SHEET (CONNECTOR)	
		< CONNECTOR >	
CN771	1-794-064-11	SOCKET, CONNECTOR 14P	
CN772	1-770-736-21	SOCKET, CONNECTOR 14P	
		< DIODE >	
LED771	8-719-037-97	LED CL-190R-CD-T (DISC IN)	
LED772	8-719-037-97	LED CL-190R-CD-T (DISC IN)	
LED773	8-719-037-97	LED CL-190R-CD-T (DISC IN)	
		< SWITCH >	
LSW771	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏏)	
		< RESISTOR >	
R774	1-216-176-11	RES-CHIP 120 5% 1/8W	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.2	2001. 06	Change of Part No. for SPRING, FITTING (ECN-CSA04727)
1.1	2000. 08	Addition of Service Note
1.0	2000. 08	Supplement-2
	2000. 07	Supplement-1
	2000. 02	New